Angeles Link – Phase 1
Quarterly Report (Q3 2024)

For the period of July 1, 2024 through September 30, 2024

Appendix 1C - Draft Reports: ESJ Plan and Screening

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SOUTHERN CALIFORNIA GAS COMPANY

ANGELES LINK PHASE 1

ENVIRONMENTAL SOCIAL JUSTICE COMMUNITY (ESJ) DRAFT ENGAGEMENT PLAN AND ESJ SCREENING

JULY 2024

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1 – INTRODUCTION

Angeles Link is envisioned as a non-discriminatory pipeline system dedicated to public use to transport clean renewable hydrogen from regional third-party production and storage sites to end users in Central and Southern California, including the Los Angeles Basin. Southern California Gas Company (SoCalGas) has prepared this Environmental and Social Justice (ESJ) Community Engagement Plan (ESJ Plan or Plan) in response to Community Based Organization Stakeholder Group (CBOSG) feedback received to engage communities living near potential preferred routes and create a meaningful opportunity to hear from the community. This Plan aligns with SoCalGas's commitment to address the needs of our community stakeholders and maintain a robust and transparent stakeholder engagement process. This ESJ Plan includes an ESJ community screening assessment (ESJ Screening), which provides baseline disadvantaged community (DAC) designation information and other demographic information for the potential preferred routes identified in Phase 1. The ESJ Screening was originally part of SoCalGas's Phase 1 Environmental Analysis, which would set forth a plan to mitigate and address impacts to DACs pursuant to the California Public Utilities Commission's (CPUC) Decision (D.) 22-12-055 (Phase 1 Decision).[1] That assessment is now included as part of this ESJ Plan since it supports SoCalGas's stakeholder engagement efforts. SoCalGas intends to leverage this information in Phase 2 to enhance future stakeholder engagement efforts and tailor outreach strategies in DAC and ESJ communities.

Future phase engagement activities are subject to CPUC approval. In this ESJ Plan SoCalGas will use the term "ESJ Communities" to encompass both ESJ Communities[2] and DACs.[3] Future engagement via a transparent process that actively involves ESJ Communities during the further development of Angeles Link is crucial to developing a responsible clean energy project that is responsive to the community's needs and concerns.

2 – BACKGROUND

Pursuant to D.22-12-055, SoCalGas formed a Planning Advisory Group (PAG) to receive technical advice and feedback on its Phase 1 feasibility studies and stakeholder engagement activities. SoCalGas also formed the CBOSG to broaden engagement and consultation from diverse community perspectives, which includes environmental and environmental justice organizations, faith-based organizations, community economic development groups, and other

[1] D.22-12-055 Ordering Paragraphs 5 (b), 6 (l).

[2] The CPUC's Environmental and Social Justice Action Plan (ESJ Action Plan) defines ESJ Communities "as predominately communities of color or low-income communities that are underrepresented in the policy setting or decision-making process, subject to a disproportionate impact from one or more environmental hazards, and are likely to experience disparate implementation of environmental regulations and socioeconomic investments in their communities." See: esj-action-plan-v2jw.pdf (ca.gov)

[3] For the purposes of this ESJ Plan, a community is considered as a disadvantaged community if it meets the CalEPA definition for a Disadvantaged Community (DAC) or the community has been identified as disadvantaged on the Climate and Economic Justice Screening Tool developed by the Biden Administration's Council on Environmental Quality. See: Final Designation of Disadvantaged Communities Pursuant to SB535, 2022 (ca.gov) for CalEPA definition of a DAC. See: https://screeningtool.geoplatform.gov/en/frequently-asked-questions#5.77/25.893/-86.555 for CEJST DAC designation.

stakeholders representing local community interests. In March 2023, SoCalGas initiated its stakeholder engagement process with both the PAG and the CBOSG. Meetings were initially held on a quarterly basis, but in response to stakeholder feedback, SoCalGas increased the cadence of the meetings to gather and consider feedback more frequently on its feasibility studies.

The Angeles Link Phase 1 stakeholder engagement process has played a pivotal role in fostering trust, acquiring valuable insights, and establishing the foundation for a community-centric approach to tackling environmental and social justice concerns within the design framework for Angeles Link. Through this engagement process, SoCalGas has identified key themes of interest to stakeholders addressed in Phase 1 feasibility studies. These include costs, air quality, pipeline safety, and workforce development, which will be factored into SoCalGas's Phase 2 stakeholder engagement activities. This stakeholder engagement process has also resulted in establishing productive working relationships with stakeholders and has furnished valuable feedback for SoCalGas, including the development of this ESJ Plan.

At a workshop in July 2023, the scope of work for SoCalGas's proposed Environmental Social Justice Assessment was presented to the PAG and CBOSG. At the time of the workshop, the plan for the ESJ Assessment was to present the state and federal government mapping tools used to identify the environmental justice communities that could be located near Angeles Link. During discussions that followed the presentation, feedback was received indicating that the ESJ Assessment should not rely solely on government mapping tools to identify and solicit feedback from DACs. This feedback recommended that, as part of SoCalGas's ESJ Assessment, meaningful, transparent, and direct community engagement meetings should be held in disadvantaged communities along potential preferred hydrogen pipeline corridors to solicit their input. In response to stakeholder feedback, SoCalGas developed this ESJ Plan. The ESJ Plan will serve as a guide for future engagement with ESJ Communities and DACs in Phase 2.

A preliminary framework of the ESJ Plan was presented to CBOSG members during a September 2023 meeting. During that meeting, SoCalGas facilitated a breakout session where CBOSG members were organized into small groups to provide feedback on the Plan.[4] Members of the CBOSG raised questions about which strategies and elements should be considered in an ESJ Plan, as well as any future engagement activities that should occur with DACs located near Angeles Link. Participants were also asked to describe preferred DAC meeting characteristics, including format, group size, and the type(s) of presentations that would be presented in community meetings. Appendix A includes a summary of the interactive breakout session. This document contains the recommendations collected from this breakout session and outlines the potential future engagement activities SoCalGas is proposing to conduct in Phase 2 to engage with ESJ Communities.

[4] Please see Section III of SoCalGas's Angeles Link Phase 1 Third Quarter Quarterly Report for a summary of the breakout session activity. Available at: https://www.socalgas.com/sites/default/files/2024-01/ALP1_QuarterlyReport_Q3-2023_FINAL.pdf

3 – GOALS OF THIS PLAN

The ESJ Plan provides a framework for engaging ESJ Communities during Phase 2 of Angeles Link and will describe how SoCalGas's engagement strategies align with the goals of the CPUC's Environmental and Social Justice (ESJ Action Plan) and other state and federal ESJ goals. Consistent with CBOSG requests, SoCalGas's ESJ Plan will also include strategies to build relationships with important stakeholders and groups, including low-income households, people of color, minority neighborhoods, immigrants, linguistically isolated communities and households, and households without internet. This ESJ Plan is dynamic and expected to evolve as project details and community needs develop. SoCalGas's engagement goals for future project phases are designed to foster collaboration with community groups, so that their input not only informs but actively shapes the project. This ESJ Plan has been drafted to accomplish the following goals:

- Actively involve ESJ Communities in educational discussions about SoCalGas's operations and relevant regulatory frameworks, emphasizing transparency and trust building.

- Provide ESJ Communities with information regarding routing and placement of new hydrogen infrastructure and collaborate with them to solicit feedback on project design to minimize and address potential impacts.

- Identify themes of interest to ESJ Communities and integrate them into Phase 2 stakeholder engagement efforts.

- Collaborate with ESJ Communities to address potential concerns such as safety[5] and affordability.

- Identify the potential benefits that could result from Angeles Link, including economic, workforce, improved air quality, and greenhouse gas emission reduction benefits.

- Gather ESJ Community input on potential direct benefits desired by impacted communities at large. Insights gathered from ESJ Communities will help shape the development of Community Benefits Plans (see Section 5 below).

Beyond an information sharing framework, the ESJ Plan also aims to enable the active involvement of ESJ Communities and other stakeholders that have been historically overlooked in a typical project development process. The ESJ Plan is designed to provide these communities with a seat at the table, creating a feedback loop that allows SoCalGas to listen to and learn from ESJ Community stakeholders directly. This approach seeks to build trust and enhance community safety, directly benefiting the communities and groups representing them.

[5] See Angeles Link Phase 1 Plan for Applicable Safety Requirements.

4 – ALIGNMENT WITH CPUC ESJ ACTION PLAN

The CPUC has created the ESJ Action Plan to serve as both a commitment to furthering ESJ principles, as well as an operating framework with which to integrate ESJ considerations throughout the agency's work.[6] The ESJ Action Plan establishes a series of goals related to health and safety, consumer protection, program benefits and enforcement in all of the sectors the CPUC regulates.[7] While SoCalGas supports the nine overarching goals included in the CPUC's ESJ Action Plan, it is important to note that not all of these goals directly apply to investor-owned utility operations, programming, or projects. These ESJ Action Plan goals were developed with CPUC's operating framework in mind. The proposed Angeles Link and this ESJ Plan align with the following applicable CPUC ESJ goals:

- CPUC ESJ Action Plan Goal 1: Consistently integrate equity and access considerations throughout CPUC regulatory activities.
    - Incorporation of this ESJ Plan into Angeles Link supports the enhancement of public participation in CPUC regulatory activities.
- CPUC ESJ Action Plan Goal 2: Increase investment in clean energy resources to benefit ESJ communities, especially to improve local air quality and public health.
    - Angeles Link would deliver decarbonized, reliable, renewable energy to Central and Southern California, including the Los Angeles Basin. The Angeles Link Phase 1 Nitrogen Oxide (NOx) and other Air Emissions Assessment shows Angeles Link could improve regional and local air quality in disadvantaged communities.
- CPUC ESJ Action Plan Goal 5: Enhance outreach and public participation opportunities for ESJ communities to meaningfully participate in the CPUC's decision-making process and benefit from CPUC programs.
    - Subject to CPUC approval to implement this ESJ Plan in Phase 2, this ESJ Plan is meant to enhance engagement participation opportunities for ESJ Communities to engage in the development of Angeles Link.
- CPUC ESJ Action Plan Goal 7: Promote high road career paths and economic opportunity for residents of ESJ communities.
    - The Phase 1 Angeles Link Workforce Planning & Training Evaluation notes that Angeles Link could create almost 75,000 jobs during the construction phase and almost 400 annual operations jobs. These jobs span various fields related to hydrogen infrastructure, including engineering, project management, and operation and maintenance. SoCalGas aims to provide high-quality workforce development opportunities in ESJ communities along potential preferred project routes which would contribute to economic opportunity for its residents.[8]

[6] https://www.cpuc.ca.gov/news-and-updates/newsroom/environmental-and-social-justice-action-plan
[7] https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/esj-action-plan-v2jw.pdf
[8] See Angeles Link Phase 1 Workforce Planning & Training Evaluation for further details.

5 – PREPARATION OF COMMUNITY BENEFITS PLANS

The Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) is California's public-private hydrogen hub consortium to accelerate the development and deployment of clean, renewable energy sources to reduce greenhouse gas emissions and advance to a zero-carbon economy.[9] The Phase 1 Decision required SoCalGas to "join other entities that are members of the Alliance for Renewable Clean Hydrogen Energy Systems in support of the State of California's Application for the federal funding provided through the Infrastructure Investment and Jobs Act.[10]" In accordance with the Phase 1 Decision, SoCalGas joined ARCHES in October 2022 and coordinated with ARCHES throughout the development of ARCHES's application for federal funding. On October 13, 2023, the Department of Energy (DOE) announced that, after a rigorous application and review process, ARCHES was one of seven hydrogen hubs (H2Hubs) selected to receive up to $1.2 billion in federal funding.[11] The DOE's Funding Opportunity Announcement (FOA) required applicants to submit an initial Community Benefits Plan with their DOE H2Hubs application.[12] Accordingly, ARCHES submitted to DOE a Community Benefits Plan, which is publicly available on the ARCHES website.[13]

A key component of the ARCHES Community Benefits Plan is implementation of the Justice40 Initiative. Executive Order 14008 created the Justice40 Initiative, which established a goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities.[14] To meet this goal, ARCHES requested that participating organizations allot approximately 1% of their project's total cost for investment into the local communities. These activities may entail workforce development and retraining, community education, green space additions, noise reduction measures, streetscape beautification measures, or any activities suggested by community stakeholders.

In accordance with ARCHES[15] and DOE requirements for the California H2Hub, SoCalGas would build on its Phase 2 stakeholder engagement activities, including execution of

[9] https://archesh2.org/about/

[10] Decision 22-12-055, p. 75, OP3 (d).

[11] https://archesh2.org/california-wins-up-to-1-2-billion-from-feds-for-hydrogen/

[12] DE-FOA-0002779, supra note [2] p. 47. DOE's FOA requires applicants to submit an initial Community Benefits Plan that sets forth the applicant's approach to ensuring that Federal investments advance the following four goals: 1) community and labor engagement; 2) investing in the American workforce; 3) advancing diversity, equity, inclusion, and accessibility (DEIA); and 4) contributing to the Justice40 Initiative. Award recipients are required to implement and update the plan during each phase of the project. DOE's FOA is currently in Phase 1.

[13] https://archesh2.org/wp-content/uploads/2023/11/ARCHES_CB_PROPOSAL_for-release.pdf

[14] https://www.energy.gov/justice/justice40-initiative#:~:text=Section%20223%20of%20EO%2014008,the%20remediation%20and%20reduction%20of

[15] ARCHES, Community Benefits Plan, available at: https://archesh2.org/wp-content/uploads/2023/11/ARCHES_CB_PROPOSAL_for-release.pdf. ARCHES's project partners, with ARCHES training and support, must conduct in-depth social and stakeholder assessments, engage with local DACs, and negotiate J40-compliant community benefits beyond the benefits offered at the hub level.

this ESJ Plan, to prepare regional Community Benefits Plans for communities situated along the project alignment.

To foster a truly collaborative environment, SoCalGas will actively engage with community members, stakeholders, and local organizations through its proposed Phase 2 stakeholder engagement activities to gather input and incorporate feedback into the regional Community Benefits Plans. This approach not only aligns with Justice40 and ARCHES guidelines, but also considers the unique needs and requests of the community.

The Justice40, CPUC, and ARCHES guidelines establish a minimum threshold for project benefits and community engagement. Subject to CPUC approval, SoCalGas will strive to maximize socioeconomic and environmental benefits in the communities it serves and the communities that may be impacted by Angeles Link. This commitment aims to enhance trust, foster sustainable partnerships, and create more inclusive outcomes, positioning Angeles Link as a model for future clean energy projects. The development of Community Benefits Plans also aligns with SoCalGas's commitment to improving the quality of life in the communities we serve.

6 – HYDROGEN EQUITY PRINCIPLES

In October 2023, a coalition of nine environmental justice organizations throughout California released a position paper on green hydrogen in California titled, "*Equity Principles for Hydrogen*[16] (Principles).*"* The Principles were developed in ten workshops and learning sessions for environmental justice partners across California between March and September of 2023. SoCalGas appreciates PAG and CBOSG members for providing SoCalGas with the Principles, as they help frame how environmental justice communities view green hydrogen production and utilization in California. SoCalGas has reviewed the Principles and sees significant alignment between many of the values and positions outlined in the Principles and Angeles Link. Please see Attachment B for a copy of the Principles and Attachment C for SoCalGas's response.

Prioritizing community engagement is central to the Principles document and is highly aligned and reflected within the transparent PAG and CBOSG stakeholder process that has actively involved communities during the development of Angeles Link's early stage. Encouraging that community voices are heard and considered is crucial when it comes to establishing trust with environmental justice communities. This ESJ Plan is meant to build on that momentum in Phase 1 and adjust how SoCalGas meaningfully engages with the communities along the potential preferred routes. The information in the Principles will help SoCalGas further engage ESJ Communities as part of its Phase 2 activities as a single potential preferred route is identified and further refined.

[16] https://www.cbecal.org/wp-content/uploads/2023/10/Equity-Hydrogen-Initiative-Shared-Hydrogen-Position-1.pdf

7 – ESJ SCREENING

The Preliminary Routing/Configuration Analysis (Routing Analysis) conducted in Phase 1 identified approximately 1,300 miles of conceptual pipeline routes, some combinations of which, could make up a hydrogen pipeline system connecting production sites, storage sites, and end users[17]. For the purposes of the ESJ Screening, 13 study areas were developed in order to group the 1,300 miles of conceptual pipeline routes based on geographic location and common natural resources and topographical features to facilitate the organization of the analysis being performed. An ESJ Screening was conducted for each of the study areas (see Attachment D for the full ESJ Screening report). Other socioeconomic conditions such as population, household income, unemployment rate, and poverty/low-income level were also captured for each of the study areas. ESJ Communities along the transportation pipeline preliminary routes identified in Phase 1 were identified using CalEnviroScreen[18] and the Climate and Economic Justice Screening Tool (CEJST).[19] These are mapping tools often used by state and federal agencies to identify ESJ Communities. SoCalGas acknowledges that these mapping tools do not fully represent all ESJ Communities in California. These tools are merely one approach SoCalGas intends to use to identify ESJ Communities and the tools provide a baseline for SoCalGas to identify potentially affected groups, communities, and individuals. Identifying and engaging with ESJ Communities would be ongoing as pipeline routing is analyzed and finalized in subsequent phases of Angeles Link.

The Routing Analysis evaluated potential directional pathways for the proposed Angeles Link pipeline system, which considered the locations of potential third-party clean renewable hydrogen producers and the potential off takers of clean renewable hydrogen, including in the mobility, power generation, and industrial sectors. The ESJ Screening shows that each of the study areas evaluated contain CalEnviroScreen or CEJST DAC designations. Some of the study areas contain higher percentages of DACs than others, as many of the end-users Angeles Link intends to serve are located in ESJ Communities. PAG and CBOSG members requested SoCalGas evaluate routing options that limit traversing through ESJ communities. As a result, the Phase 1 Routing Analysis was revised to include an alternative LA Basin Scenario for consideration in Phase 2 to potentially mitigate impacts to ESJ Communities.

Delivery of clean renewable hydrogen through Angeles Link could lead to meaningful emissions reductions and associated health benefits in these communities, which have been

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[17] At this stage in the Angeles Link feasibility analysis, the 1,300 miles of conceptual pipeline routes are directional in nature. The conceptual routes do not illustrate the specific routes where Angeles Link may be constructed, as specific routes and street-level alignments will be further studied and refined in future phases of Angeles Link. However, while still directional in nature, for purposes of evaluating [conducting an ESJ screening], this analysis reviewed specific routes drawn on a map for the informational purposes of this study.

[18] CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. This tool was developed by the California Office of Environmental Health Hazard Assessment. See: https://oehha.ca.gov/calenviroscreen

[19] CEJST has datasets that are indicators of burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. This tool was developed by the Council on Environmental Quality in response to Executive Order 14008. See: https://screeningtool.geoplatform.gov/en/about

disproportionately impacted by emissions from ports, major transportation corridors, electric generation, and other industrial activities.[20] SoCalGas emphasizes that the ESJ Screening will guide the identification of additional stakeholders and communities to engage in Phase 2 of Angeles Link. This process will enable SoCalGas to prioritize resource allocation and plan additional outreach and engagement efforts. As a result, SoCalGas can tailor outreach strategies, which may involve targeted communication, increased community meetings, and collaboration to address specific needs and concerns.

Additionally, in Phase 2 SoCalGas intends to engage additional stakeholders who live, work, or own businesses in the community; public health organizations and local health departments; schools; labor organizations; academic researchers; additional technical experts; federal, state, and tribal decision-making bodies; and local representatives. Further, non-governmental organizations, education associations, public health and safety groups, community planning groups, and concerned members of the public would also be identified. Reasonable efforts would be made to bring stakeholders or communities that are historically overlooked in a typical project development process into the development process of Angeles Link.

8 – ENGAGEMENT STRATEGIES

Many of the strategies incorporated in this Plan are based on recommendations from the September 2023 CBOSG workshop participants, feedback received at the CBOSG and PAG workshop meetings held since March 2023, and written comments submitted by CBOSG and PAG members throughout Angeles Link's Phase 1 activities.[21]

This ESJ Plan marks the beginning of SoCalGas's long-term commitment to continually identify and engage with ESJ Communities as part of Angeles Link's development to learn about their most pressing concerns, mitigate potential negative impacts, and maximizing benefits to the community. This ongoing process will be fundamental throughout all phases.

In Phase 2, SoCalGas intends to tailor region-specific engagement strategies and draw upon the following to engage ESJ Communities in each potentially impacted region (subject to CPUC approval):

- **Collaborate with Grassroots Organizations Along Routes:** Identify grassroots organizations and neighborhood leaders who represent or serve the communities or households along proposed routes. These organizations can convene community meetings, act as trusted intermediaries, facilitate the conveyance of information, and gather feedback from the communities they serve. Additionally, these organizations and leaders can help determine appropriate engagement techniques, communicate effectively with the community, and provide opportunities for co-hosting meetings or events (whether in person or virtually). Participating in an already scheduled event or meeting offers an efficient stakeholder engagement approach.

[20] See Angeles Link Phase 1 NOx and Other Air Emissions Assessment and Greenhouse Gas Emissions Evaluation for further details.

[21] Quarterly Reports filed with the CPUC by SoCalGas are available at https://www.socalgas.com/sustainability/hydrogen/angeles-link

- **Promotoras:** Leverage the *promotoras de salud* (a Spanish term for community health workers) model[22] where trusted and respected members of the community serve as liaisons between community members and SoCalGas. Promotoras will be extensively trained not only to share detailed information about Angeles Link, but also to educate community members on how they can provide feedback to SoCalGas. They will explain the feedback mechanisms available, so that community concerns are heard. This approach facilitates a two-way communication channel where feedback can directly influence how potential project impacts are mitigated, aligning project development with community needs.

- **Direct Community Engagement:** Conduct outreach in community spaces frequented by community members, such as ethnic grocery stores, cultural centers, senior centers, and places of worship. Engaging people in familiar and trusted environments can lead to higher engagement and more genuine feedback. Engagement at these locations could include public involvement information tables, "leave-behind" materials, direct mail, or notices of community meetings and engagement opportunities.

- **Educate through Local Media:** Informing the communities about engagement opportunities by communicating through local targeted media outlets using television and radio appearances, advertisements, news articles, and press releases in print and digital formats.

- **Partner with Local Governments:** Local elected government officials can play a crucial role in bridging the gap between large organizations and community stakeholders by utilizing their deep understanding of local needs and established relationships. Officials can help mobilize community resources and coordinate engagement efforts, making the outreach process more efficient and aligned with local expectations and cultural norms.

- **Establish a Toll-Free Hotline to Reach Households with Limited/No Access to Internet Service:** Hotlines can provide pre-recorded information and the ability for the caller to leave a comment or question regarding Angeles Link. A call-in option will be made available when virtual meetings are held.

- **Maintain a dedicated Angeles Link Website For Information and Public Comments Submission**: A dedicated Angeles Link website can be maintained in targeted languages to facilitate community input and disseminate important updates and information.

- **Specialized Small Sub-Group Convenings:** Conduct focused small group discussions with representatives from subgroups within disadvantaged communities to understand their specific concerns and needs better. Subgroups can include, but not limited to, low-

[22] "Promotoras" is a broad umbrella category for community health workers that provide health education and outreach services within their own communities. They deliver culturally tailored health education and disseminate information about health and social resources to Hispanics and their families. They serve as bridges between their communities and the formal healthcare system. From: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3970723/

income households, people of color, linguistically isolated neighborhoods, or immigrant communities. Smaller group sessions will promote inclusivity and provide an opportunity for those who may not feel comfortable speaking up in larger community meetings. This will allow SoCalGas to refine strategies, so they are as effective and inclusive as possible.

SoCalGas acknowledges that our approach to stakeholder engagement cannot be uniform or standardized due to the diverse needs and circumstances of different community regions. For instance, ESJ Community needs in the Central Valley differ from those located in the Los Angeles Basin. Various regions along Angeles Link's potential preferred routes often face unique challenges, necessitating tailored approaches to effectively address their specific issues and concerns. Recognizing that "one size does not fit all," SoCalGas would seek feedback from stakeholders—whether through verbal interactions during public meetings or via community surveys—and tailoring these strategies as Angeles Link progresses and community needs evolve.

9 – PHASE 2 ESJ COMMUNITY ENGAGEMENT MEETING APPROACH AND INFORMATION SHARING

To foster inclusive and accessible community engagement, SoCalGas will conduct both in-person and virtual meetings. Each meeting, regardless of format, will integrate a comprehensive approach to preparation and information sharing. SoCalGas plans to have meeting facilitators and supporting staff undergo a structured preparation process that includes training on cultural competence. This training enhances our team's ability to understand, communicate, and interact effectively with people from diverse backgrounds.

In addition, SoCalGas will develop communication materials that are culturally and linguistically tailored to meet the diverse needs of individual community groups. These materials, including visual aids designed to convey complex information clearly, will be translated into relevant languages for accessibility. Additionally, we will advertise these meetings in multiple languages and host them at appropriate times, to reach as broad an audience as possible.

SoCalGas will aim to remove barriers to participation so that that all community members can participate fully. Our meetings will be scheduled at locations considering participants' work schedules and cultural norms. SoCalGas may consider providing additional support services like transportation, if permissible. In communities where languages other than English predominate SoCalGas plans to provide interpretation services. For in-person sessions, we will offer a hybrid format, allowing stakeholders to join either in-person or virtually, enhancing accessibility and convenience.

Our virtual meetings will be relatively concise, approximately an hour or two in length, and will focus on providing updates on aspects of Angeles Link's development. We will utilize digital tools such as project websites, online surveys, and social media campaigns in multiple languages to facilitate community input. These virtual platforms will be accessible via phone, and SoCalGas will schedule these sessions at various times to accommodate different schedules, so that everyone can engage and express their views on community issues and decisions.

By incorporating these focused strategies into Angeles Link's Phase 2 development process, SoCalGas aims to meaningfully engage ESJ Communities regardless of their specific circumstances, so they can influence Angeles Link in ways that truly benefit them. This approach not only enhances the inclusivity and effectiveness of our engagement efforts but also aligns with our commitment to social and environmental justice.

10 – CONCLUSION

At the time this draft ESJ Plan was developed, SoCalGas is conducting feasibility studies as part of Phase 1 of Angeles Link. Subject to CPUC authorization, SoCalGas plans to implement the stakeholder engagement activities proposed in this ESJ Plan in Phase 2, which is expected to be filed after Phase 1 feasibility studies conclude. To summarize, the delivery of clean renewable hydrogen through Angeles Link could lead to meaningful emissions reductions[23] and associated health benefits in these communities, which have been disproportionately impacted by emissions from ports, major transportation corridors, electric generation, and other industrial activities. Further, Angeles Link could bring significant economic and workforce benefits in ESJ Communities along potential preferred pipeline routes.[24] This ESJ Plan serves as a framework for engaging ESJ Communities. It is intended to be dynamic and expected to change as project details develop and community needs evolve. SoCalGas looks forward to active and meaningful engagement with stakeholders in Phase 2 and throughout the development of Angeles Link.

[23] See Angeles Link Phase 1 NOx and Other Air Emissions Assessment for further details.
[24] See Angeles Link Phase 1 Workforce Planning & Training Evaluation for further details.

ANGELES LINK PHASE 1

ENVIRONMENTAL AND SOCIAL JUSTICE SCREENING

DRAFT – JULY 2024

SoCalGas commissioned this Environmental Analysis study from Insignia Environmental. The analysis was conducted, and this report was prepared, collaboratively.

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1 – INTRODUCTION

On December 15, 2022, the California Public Utilities Commission (CPUC) adopted Decision 22-12-055 (Decision) authorizing the establishment of Southern California Gas Company's (SoCalGas's) Memorandum Account to track costs for advancing the first phase (Phase 1) of Angeles Link (Angeles Link). Angeles Link is envisioned as a non-discriminatory pipeline system dedicated to public use to transport clean renewable hydrogen from regional third-party production and storage sites to end users in Central and Southern California, including the Los Angeles Basin.

In accordance with the CPUC's Decision, this Phase 1 Environmental and Social Justice Screening (ESJ Screening) has been prepared to support SoCalGas's development of strategies to address and mitigate potential impacts to disadvantaged communities (DACs) and other environmental justice (EJ) concerns (OP(6)(l)). The purpose of this Phase 1 ESJ Screening is to identify DACs and preliminarily identify potential impacts to DACs. The ESJ Screening work is not intended to define actual impacts, but rather provides a desktop analysis of the potential Angeles Link pipeline corridors that have the highest concentration of DACs, as well as a list of indicators for each area that could help SoCalGas prioritize future stakeholder engagement and routing efforts.

The subsections that follow define the approach, project description, methodology and regulatory setting, existing conditions of the study areas, potential impacts, potential avoidance and minimization measures (AMMs), and conclusions.

1.0 APPROACH

The ESJ Screening contained in this report is based on conceptual pipeline routes developed in November 2023. Minor refinements have been made to those routes since November 2023 and are reflected in the Routing Study. These minor changes are not reflected in this draft ESJ Screening and the information and data provided in this draft will be updated in the final ESJ Screening report.

The Routing/Configurations Analysis (Routing Study) identified approximately 1,300 miles of conceptual pipeline routes, some combinations of which, could make up a hydrogen pipeline system connecting production sites, storage sites, and end users. In reviewing these potential routes, 13 study areas were developed in order to group the 1,300 miles of conceptual pipeline routes based on geographic location and common natural resources and topographical features to facilitate the organization of the analysis being performed.

At this stage in the Angeles Link feasibility analysis, the 1,300 miles of conceptual pipeline routes are directional in nature. The conceptual routes do not illustrate the specific routes where Angeles Link may be constructed, as specific routes and street-level alignments will be further studied and refined in future phases of Angeles Link. Details regarding all potential appurtenance facilities (including potential locations of compressor stations that may be needed), or the methods required to construct and operate the pipeline system, were also not available at this early stage in the feasibility analysis. While still directional in nature, for purposes of conducting an ESJ Screening, this analysis reviewed specific routes drawn on a map for the informational

purposes of this analysis. It is anticipated that as the conceptual pipeline routes and the designs for appurtenant facilities are further developed in future phases, the data collected for each study area will assist with future routing, feasibility, and constructability considerations.

For the purposes of this ESJ Screening the following approach was followed:

- Define the area of effect or study area.[1]
- Collect the appropriate ESJ indicator and demographic data for that area.[2]
- Map the data.
- Identify potential effects of Angeles Link to underserved or potentially vulnerable DACs.

DAC and ESJ indicator data was collected from the following sources:

- CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state (Office of Environmental Health Hazard Assessment [OEHHA] 2021). This tool was developed by the California Office of Environmental Health Hazard Assessment.

- CEJST, which has datasets that are indicators of burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development (United States [U.S.] Climate Resilience Toolkit 2023). This tool was developed by the Council on Environmental Quality in response to Executive Order [EO] 14008 (U.S. Federal Register 2021).

Additional demographic data characterizing socioeconomic conditions such as population, house household income, unemployment rate, poverty/low-income level, etc. was collected for each study area from public sources such as the U.S. Census Bureau and California Department of Education. For purposes of this report, a table of the cities/unincorporated areas potentially crossed by the conceptual pipeline routes in each study area, as well as certain demographic and socioeconomic information are identified in Chapter 3 – Existing Conditions. Data tables presented within this ESJ Screening include information sources. Each of the 13 study areas and the DACs in each study area are depicted in Attachment A: Angeles Link Phase 1 Community Maps.

1.1 PROJECT DESCRIPTION

Angeles Link is envisioned as a non-discriminatory pipeline system that is dedicated to public use. The pipeline system would transport clean renewable hydrogen from regional third-party production and storage sites to end users in Central and Southern California, including the Los Angeles Basin (inclusive of the Ports of Los Angeles and Long Beach). This ESJ Screening

[1] For the purposes of this ESJ Screening, the area of effect/study area is defined as a buffer of 1,000 feet on either side of the Angeles Link's conceptual pipeline routes.

[2] SoCalGas acknowledges that these mapping tools do not fully represent all ESJ Communities in California. These tools are merely one approach SoCalGas intends to use to identify ESJ Communities and their utilization provides a baseline for SoCalGas to identify potentially affected groups, communities, and individuals. SoCalGas will consult with community stakeholders to identify and engage with ESJ Communities.

assumes the pipeline system would include the installation of entirely new pipelines and would not include the repurposing of existing pipeline infrastructure as part of the pipeline system.

The preferred pipeline routes would extend across approximately 450 miles and include two pipeline segments identified by the California Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES).[3] The pipeline system would convey clean renewable hydrogen at a pressure ranging from approximately 200 to 1200 pounds per square inch gauge and include pipeline diameters that may be up to 36 inches. Angeles Link could convey approximately 0.5 million metric tons (MMT) to 1.5 MMT of clean renewable hydrogen per year over time, which represents a portion of the total estimated clean renewable hydrogen demand within SoCalGas's service territory by 2045.[4]

A detailed description of each of the 13 study areas, the conceptual pipeline routes within each study area, and corresponding overview maps are provided in the separate Phase 1 Environmental Analysis.

2 – METHODOLOGY AND REGULATORY SETTING

2.0 REGULATORY SETTING

The EJ federal and state programs reviewed to address potential EJ impacts associated with Angeles Link are summarized below.

2.0.0 Environmental Protection Agency

On February 11, 1994, EO 12898 was issued, which requires that all federal agencies have a mission of achieving environmental justice by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations in the U.S. and its territories, including tribal populations (*Federal Register* 1994). Together, the Council on Environmental Quality and the U.S. Environmental Protection Agency (EPA) administer the EO's directives on EJ. The EPA has issued guidance documents for incorporating EJ goals into a federal agency's environmental review process for pending major actions. While the pipeline system would not be directly reviewed by the EPA, these guidance documents provide a framework for evaluating potential impacts to ESJ communities and for complying with EO 12898.

Federal agencies primarily rely on demographic and environmental data based on the U.S. Census Bureau and geographic information system mapping information.

2.0.1 California Public Utilities Commission

The CPUC developed an ESJ Action Plan (Action Plan) to establish a series of goals related to public health and safety, consumer protection, program benefits, and enforcement in all the

[3] The Alliance for Renewable Clean Hydrogen Energy Systems, or ARCHES, is a statewide public-private partnership to build the framework for California's renewable clean hydrogen hub.

[4] See the separate Angeles Link Phase 1 feasibility Demand Study for more information on the total estimated demand for clean renewable hydrogen in SoCalGas's service territory by 2045.

sectors that the CPUC regulates. The Action Plan is intended to serve as a resource for CPUC staff and other stakeholders by setting goals and objectives to provide a broad vision and define actions the CPUC will take to ensure equity in its programs and services (CPUC 2022).

The Action Plan defines EJ as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The Action Plan states that the goal will be achieved when everyone enjoys the following:

- the same degree of protection from environmental and health hazards; and
- equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

2.0.2 California Air Resources Board

DACs in California are specifically targeted for investment of proceeds from the California Air Resources Board's (CARB's) Cap-and-Trade Program.[5] These investments are aimed at improving public health, quality of life, and economic opportunity in California's most burdened communities while reducing pollution that causes climate change.

2.0.3 California Senate Bill 535

In 2012, Senate Bill (SB) 535 established initial requirements for minimum funding levels to DACs. The legislation also gives the California Environmental Protection Agency (CalEPA) the responsibility for identifying those communities based on geographic, socioeconomic, public health, and environmental hazard criteria.

The main CalEnviroScreen EJ screening tool layer used for this analysis includes identification of SB 535 communities. This layer was selected because it identifies the top 25 percent of the highest scoring Census tracts considered DACs, based on known health and socioeconomic burdens.

2.0.4 California Assembly Bill 617

In 2017, California passed Assembly Bill (AB) 617, which directed CARB to establish the Community Air Protection Program (CAPP). The CAPP's focus is to reduce exposure in communities most impacted by air pollution. In 2018, CARB selected 10 communities for community air monitoring and/or pollution reduction programs under the CAPP. Additional communities for inclusion in the program have been selected annually.

Depending on where pipelines are ultimately sited, Angeles Link facilities could be located in the areas that have been selected by CARB for the CAPP. As part of the requirements set forth by CARB for each CAPP community, air districts are responsible for convening a Community Steering Committee (CSC), which includes a broad range of stakeholders from each CAPP

[5] The Cap-and-Trade Program is a key element of California's strategy to reduce greenhouse gas (GHG) emissions. The Cap-and-Trade Regulation establishes a declining limit on major sources of GHG emissions throughout California, and it creates a powerful economic incentive for significant investment in cleaner, more efficient technologies. See: https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/about

community. CSC members comprise an advisory body that provides input to air district staff on technical details related to source attribution, air monitoring, and other technical analyses needed to develop air monitoring plans and Community Emissions Reduction Plans for AB 617 implementation.

SoCalGas would collaborate with air district (i.e., the South Coast Air Quality Management District) staff as appropriate to engage AB 617 CSC members in its engagement plan efforts for any future Phase 2 activities, if approved by the CPUC to move forward.

2.0.5 Opportunity Zones

Opportunity Zones, established by the Tax Cuts and Jobs Act of 2017, are economically distressed communities defined by individual census tract, nominated by state governors, and certified by the U.S. Secretary of the Treasury.[6] The Opportunity Zones initiative is intended to serve as an incentive to spur private and public investment in distressed areas. Opportunity Zones serve as an additional dataset that can be used to evaluate communities that Angeles Link may be located in and may inform the development of Community Benefits Plans.

2.1 DEFINITIONS

The EPA guidance for evaluation of ESJ communities requires consideration of low-income and minority populations. Some definitions for low-income and minority vary slightly, depending on the agency. Consistent with geospatial mapping tools for this analysis, as described in Section 2.2 Geospatial Mapping Tools, the following definitions were used in the ESJ Screening.

2.1.0 Low-Income

The CPUC Action Plan defines low-income households as those with household incomes at or below 80 percent of the statewide median income or with household incomes at or below the threshold designated as low-income by the Department of Housing and Community Development's list of state income limits adopted pursuant to Section 50093.[7,8]

The Department of Housing and Community Development's list of state income limits, as adopted in Section 50093, defines low-income communities as Census tracts with median household incomes at or below 80 percent of the statewide median income or with median household incomes at or below the threshold designated as low-income.

2.1.1 Minority Populations

The White House Office of Management and Budget, Council on Environmental Quality guidance and the U.S. Census Bureau classify minority populations differently based on distinct

[6] See: HUD, "Opportunity Now," (Accessed 7/18/2024), available at: https://opportunityzones.hud.gov; Governor's Office of Business and Economic Development, California Community and Place Based Solutions, "Opportunity Zones," (Accessed 7/18/2024), available at: https://economicdevelopment.business.ca.gov/place-based-strategies/opportunity-zones.

[7] California Code, Health and Safety Code § 3971.3

[8] Individual CPUC programs may have low-income designations defined in statute that supersede this definition or may use federal poverty guidelines to define low-income.

race and ethnic categories. For purposes of this ESJ Screening, the following six categories that broadly address agency guidance were used:

- African American,
- Native American and Alaskan Native,
- Asian,
- Native Hawaiian and Pacific Islander,
- Other Race, and
- Hispanic or Latino Origin.

2.2 GEOSPATIAL MAPPING TOOLS

Two geospatial mapping/screening tools were selected for evaluation of ESJ communities within the pipeline study areas: these included CalEnviroScreen 4.0 and the Climate and Economic Justice Screening Tool (CEJST). These screening tools utilize demographic information from both the state and federal levels, which allows for a more thorough analysis. These screening tools use maps and reports to present environmental/pollution indicators and socioeconomic indicators and are discussed further in the following subsections.

General overview maps depicting the ESJ communities and DACs by Census tract for all 13 study areas are included in Attachment A. CAPP and Opportunity Zone information is also displayed in Attachment A.

The California Office of Environmental Health Hazard Assessment is responsible for administering the CalEnviroScreen 4.0 Mapping Tool. CalEnviroScreen 4.0 uses 21 statewide indicators to characterize pollution burden and population characteristics. Pollution burden indicators are broken down into exposures and environmental effects.

For the purposes of this ESJ Screening analysis, the CalEnviroScreen 4.0-SB 535 DACs layer was used to identify the Census tracts that occur within 1,000 feet of Angeles Link that could potentially be impacted by potential routes of the clean hydrogen pipeline system. The SB 535 DACs layer represents the following:

- the highest-scoring 25 percent of Census tracts in CalEnviroScreen 4.0;
- Census tracts previously identified in the top 25 percent in CalEnviroScreen 3.0;
- Census tracts with high amounts of pollution and low populations; and
- federally recognized tribal areas as identified by the Census in the 2021 American Indian Areas Related National Geodatabase.

2.2.0 Climate Economic Justice Screening Tool

In January 2021, President Biden issued EO 14008, which directed the Council on Environmental Quality to develop a new toolkit to help identify DACs. CEJST is a geospatial mapping tool that identifies areas across the nation where communities are faced with significant burdens. These burdens are organized into eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development (U.S. Climate Resilience Toolkit 2023). Communities are considered disadvantaged if they are in Census tracts

that occur within 1,000 feet of Angeles Link that meet the thresholds for at least one of the tool's categories of significant burden or if they are on land within the boundaries of a federally recognized tribe. The tool's categories of burden include climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.[9] The CEJST mapping layer was used to identify the Census tracts that could potentially be impacted by pipeline segments.

2.3 ENVIRONMENTAL SETTING

Guidance issued by the EPA, Council on Environmental Quality, and CPUC does not specifically identify a requisite methodology to conduct an EJ assessment. Federal agencies primarily rely on demographic and environmental data based on the U.S. Census Bureau and geographic information system mapping information. As mentioned previously, to characterize existing conditions, the CalEnviroScreen 4.0-SB 535 DACs and CEJST screening tool layers based on U.S. Census Bureau data, as well as identified CAPP program communities, were overlayed on each proposed pipeline route study area to determine where the highest concentration of DACs would occur and would have the potential to be impacted by the construction and operation of the pipeline system.

This ESJ Screening included evaluation of demographic data from state and federal agency databases and use of EJ screening tools containing EJ indicators, including poverty/low-income and minority populations and environmental and economic indicators related to DACs. This screening data will enable SoCalGas to prioritize resource allocation and plan outreach and engagement efforts for Angeles Link.

2.4 IDENTIFIYING POTENTIAL IMPACTS

Due to the feasibility stage and preliminary nature of Angeles Link, specific construction methods for the conceptual routes (including equipment and ground disturbance requirements) were not yet determined at the time of this screening. Further, each pipeline route's precise alignment had not been engineered. Therefore, potential impacts from construction and/or O&M of pipeline facilities are identified in this report based on professional experience on similar linear infrastructure projects over the past 15 years and evaluating the potential of the construction and the O&M activities to impact existing conditions, including the following:

- air quality, including ozone, fine inhalable particulate matter, and diesel emissions concentrations;
- soils, including hazardous waste, solid waste, and cleanup sites, as well as known legacy pollution;
- water resources, including drinking water, groundwater, and impaired waterbodies; and

[9] More information on CEJST categories of burden are provided at https://screeningtool.geoplatform.gov/en/methodology#3/33.47/-97.5.

- socioeconomic considerations that DACs may experience during construction and O&M activities, including elevated noise impacts, traffic delays due to construction, and aesthetics based on the presence of new aboveground features.

The environmental resources listed previously are typically evaluated when considering impacts to ESJ communities and DACs to ensure impacts are not disproportionate for these communities. In addition, other socioeconomic and human health concerns are often considered, such as the potential for higher asthma rates in a given area (U.S. EPA 1998).

General avoidance, minimization, and mitigation measures designed to reduce impacts, including best management practices (BMPs) for typical environmental (i.e., air quality, water quality) and socioeconomic impacts associated with construction and O&M of the pipeline system, were also identified, in Chapter 4 – Impact Discussion. Chapter 5 – Conclusions describes the screening analysis findings and conclusions.

3 – EXISTING CONDITIONS

This chapter identifies the DACs and ESJ communities along the conceptual pipeline routes identified in Phase 1 for Angeles Link. DAC and ESJ communities were identified using the following public desktop tools:

- CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state (Office of Environmental Health Hazard Assessment [OEHHA] 2021). This tool was developed by the California Office of Environmental Health Hazard Assessment.

- CEJST, which has datasets that are indicators of burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development (U.S. Climate Resilience Toolkit 2023). This tool was developed by the Council on Environmental Quality in response to EO 14008 (U.S. Federal Register 2021).

While CalEnviroScreen and the CEJST provide valuable insights on where historically marginalized and vulnerable communities reside, SoCalGas recognizes these are desktop tools only that are meant to be utilized as an initial screening tool to identify what communities could be potentially be impacted by Angeles Link's potential routes. As routing is refined and a preferred route is identified, SoCalGas plans to engage with grassroots organizations, community members, local leaders, and others who live, work and own businesses in the community to gain input in the Phase 2 planning process to minimize impacts on DACs and ESJ communities. Reasonable efforts would be made to bring stakeholders or communities that are historically overlooked in a typical project development process into the development process of Angeles Link. For more information on this plan for engagement, please refer to SoCalGas's Environmental Social Justice Community Engagement Plan.

The following chapter describes existing socioeconomic conditions within the 13 study areas.[10]

3.0 STUDY AREA 1A

3.0.0 Existing Conditions

This section characterizes existing socioeconomic conditions based on DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link route of Segment C within Study Area 1A. The corresponding cities and unincorporated areas are detailed in Table 1: Cities and Unincorporated Areas Crossed by the Study Area 1A.

Table 1: Cities and Unincorporated Areas Crossed by the Study Area 1A

Segment	City	Miles Crossed through Jurisdiction
C	City of Avenal	3.1
	Unincorporated Fresno County	29.4
	Unincorporated Kern County	26.7
	Unincorporated Kings County	20.1

Source: California Governor's Office of Emergency Services 2023

Existing conditions for Study Area 1A were determined using U.S. Census data, CalEnviroScreen data, and CEJST data.

3.0.0.1 Census Tract Statistics

Table 2: Census Tract Statistics by Segment Crossed – Study Area 1A provides a summary of the socioeconomic status of Study Area 1A. The table uses Fresno, Kern, and King counties as a baseline to compare the Census tracts. The table lists the percentage of Census tracts within each segment that have a CalEnviroScreen or CEJST DAC designation. The table also lists the percentage of Census tracts that would be crossed by each segment that have a higher percentage of population below poverty, linguistically isolated households, or minority population percentage when compared to the averages of the counties in which they are located.

3.0.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 1A is detailed in Table 3: Disadvantaged Community Designation – Study Area 1A. As indicated in the table, a total of six Census tracts would be crossed by Study Area 1A. All six of these tracts are identified as DACs.

3.0.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the counties and Census tracts within Study Area 1A, including household income, unemployment rate, and the percentage of population below

[10] The ESJ Screening is based on conceptual pipeline routes developed in November 2023 as part of the Routing Study.

poverty/low-income, are detailed in Table 4: Low-Income/Poverty Conditions – Study Area 1A. The median household income for Census tracts within Study Area 1A ranges from $22,391 to $52,181. The median household incomes for Fresno County, Kern County, and Kings County are $53,969, $53,350, and $57,848, respectively. The data show that all tracts in Study Area 1A are below the median household income for the counties in which they are located.

Table 2: Census Tract Statistics by Segment Crossed – Study Area 1A

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low Income[11]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[12]	Percentage of Census Tracts Above the County Total Minority Population Percentage[13]
C	100	83.3	100	100

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022, U.S. Census Bureau 2019a, U.S. Census Bureau 2019b, U.S. Census Bureau 2019c

Table 3: Disadvantaged Community Designation – Study Area 1A[14]

Census Tract	Population	Segment(s)	CalEnviroScreen Designation	CEJST Designation
6029004500	2,635	C	CalEnviroScreen 4.0 Top 25	DAC
6031001701	10,015	C	CalEnviroScreen 4.0 Top 25	DAC
6019007801	2,731	C	CalEnviroScreen 4.0 Top 25	DAC
6019007802	5,354	C	CalEnviroScreen 4.0 Top 25	DAC
6019007902	2,952	C	CalEnviroScreen 4.0 Top 25	Not Applicable (N/A)
6031001601	4,101	C	CalEnviroScreen 4.0 Top 25	DAC

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

The unemployment rate for Census tracts within Study Area 1A ranges from 6.5 percent to 14.4 percent. The median unemployment rates for Fresno County, Kern County, and Kings County are 8.7 percent, 9.8 percent, and 7.6 percent, respectively. The data show that five of the six tracts within Study Area 1A have higher unemployment rates than the counties in which they are located.

The percentage of population below poverty for Census tracts within Study Area 1A ranges from 12.6 percent to 53.6 percent. The percentages of population below poverty for Fresno County, Kern County, and Kings County are 22.5 percent, 21.0 percent, and 18.2 percent, respectively.

[11] Approximately 14.9 percent and 10.9 percent of the Los Angeles County and Orange County populations, respectively, are below the poverty line or are low income.
[12] Approximately 12.6 percent and 8.4 percent of Los Angeles County and Orange County, respectively, are limited English-speaking households.
[13] The Los Angeles County and Orange County total minority population percentages are 75.5 percent and 59.4 percent, respectively.
[14] Each row that is shaded is considered a DAC.

The data show that five of the six tracts within Study Area 1A have higher percentages of population below poverty than the counties in which they are located.

Table 4: Low-Income/Poverty Conditions – Study Area 1A

County/Census Tract	Segment(s)	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Fresno County	N/A	$53,969	8.7	22.5
6019007801	C	$44,042	11.3	26.2
6019007802	C	$22,391	14.4	53.6
6019007902	C	$52,173	10.7	12.6
Kern County	N/A	$53,350	9.8	21.0
6029004500	C	$35,560	6.5	25.8
Kings County	N/A	$57,848	7.6	18.2
6031001701	C	$40,523	12.4	36
6031001601	C	$52,181	9.1	20.3

Sources: U.S. Census Bureau 2019b, U.S. Census Bureau 2019d, U.S. Census Bureau 2019e

3.0.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Fresno, Kern, and Kings counties that would be crossed by the segments of Study Area 1A are detailed in Table 5: Public Services – Study Area 1A.

Table 5: Public Services – Study Area 1A

County	Segment(s)	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Fresno County	C	371	1	12	10	1817
Kern County	C	280	15	9	5	1311
Kings County	C	72	1	3	2	235

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.0.0.5 Minority/Ethnicity

The minority/ethnicity statistics of the Census tracts in Fresno, Kern, and Kings counties that would be crossed by the segments in Study Area 1A are identified in Table 6: Minority/Ethnicity Percentages – Study Area 1A. The minority population percentage for Census tracts within Study Area 1A ranges from 83.3 percent to 98.8 percent. The total minority percentages in Fresno County, Kern County, and Kings County are 70.6 percent, 65.8 percent, and 67.8 percent,

respectively. The data show that all six tracts that would be crossed by Study Area 1A have higher minority percentage rates than the averages of the counties in which they are located.

Table 6: Minority/Ethnicity Percentages – Study Area 1A

County/ Census Tract	Segment(s)	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
Fresno County	N/A	65.0	4.8	1.2	10.3	0.2	14.4	53.1	70.6
6019007801	C	40.9	0.8	7.4	0	0	50.9	97.9	98.8
6019007802	C	49.4	0.3	6.4	0.3	0	42.3	89.8	93.7
6019007902	C	46.8	4	4.1	0.7	0.1	41.9	75.4	84.7
Kern County	N/A	74.4	5.5	1.0	4.7	0.2	10.7	53.3	65.8
6029004500	C	91.8	0	1.3	1	0	6	92.8	93.7
Kings County	N/A	67.7	6.4	1.6	3.9	0.2	16.1	54.5	67.8
6031001601	C	51.8	2.8	17.5	0.8	0	23.8	65	83.3
6031001701	C	52.4	1.4	0	0	0	46.2	93.7	93.9

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic White.
Source: U.S. Census Bureau 2019a

3.2 STUDY AREA 1B

3.2.0 Existing Conditions

This section characterizes existing socioeconomic conditions based on DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes of Segment B; Segment B,K; and Segment G within Study Area 1B. The corresponding cities and unincorporated areas are detailed in Table 7: Jurisdictions Crossed by the Study Area 1B Segments.

Table 7: Jurisdictions Crossed by the Study Area 1B Segments

Segment	Jurisdiction	Miles Crossed through Jurisdiction
B	City of Palmdale	0.1
	City of Santa Clarita	6.7
B,K	City of Los Angeles	1.3
	City of Santa Clarita	2.6
G	City of Lancaster	7.1
	City of Palmdale	6.2

Source: California Governor's Office of Emergency Services 2023

Existing conditions for Study Area 1B were determined using U.S. Census data, CalEnviroScreen data, and CEJST data.

3.2.0.1 Census Tract Statistics

Table 8: Census Tract Statistics by Segment Crossed – Study Area 1B provides a summary of the socioeconomic status of the individual segments of Study Area 1B. The table uses the data for Los Angeles County as a baseline percentage, which is then compared with the percentage of each Census tract that would be crossed. The table lists the percentage of Census tracts within each segment that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentages of Census tracts that would be crossed by each segment that have a higher percentage of the population below the poverty line, linguistically isolated households,[15] or minority[16] population when compared to the Los Angeles County averages, which are 14.9 percent, 12.7 percent, and 75.5 percent, respectively.

[15] Six of the 32 Census tracts that would be crossed by the Study Area 1B segments did not have sufficient data to determine linguistic isolation. These communities were not included in the calculation of the percentage of linguistically isolated households.

[16] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic white.

Table 8: Census Tract Statistics by Segment Crossed – Study Area 1B

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low Income[17]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[18]	Percentage of Census Tracts Above the County Total Minority Population Percentage[19]
B	5.9	23.5	14.3	11.7
G	50	78.6	0	35.7
B,K	60	50	25	33.3

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022, U.S. Census Bureau 2019a, U.S. Census Bureau 2019b, U.S. Census Bureau 2019c

3.2.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within the area of potential effect is listed in Table 9: Disadvantaged Community Designation – Study Area 1B. As indicated in the table, a total of 32 Census tracts would be crossed by the segments in Study Area 1B. Of these 32 tracts, 10 are identified as DACs. Of these 10 tracts, Segment G would cross six; Segment B would cross one; and Segment B, K would cross three.

3.2.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of Los Angeles County and the Census tracts that would be crossed by the segments in Study Area 1B (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are provided in Table 10: Low-Income/Poverty Conditions – Study Area 1B. The median household income for Census tracts within the area of potential effect in Study Area 1B ranges from $40,556 to $147,917. The median household income for Los Angeles County is $68,044. For Segment G, the median household income ranges from $40,556 to $110,692. For Segments B and B, K, the median household incomes range from $56,297 to $146,310 and from $56,297 to $112,404, respectively. The data show that 10 tracts in Segment G, three tracts in Segment B, and one tract in Segment B, K are below the median household income for Los Angeles County.

[17] Approximately 14.9 percent and 10.9 percent of the Los Angeles County and Orange County populations, respectively, are below the poverty line or are low income.

[18] Approximately 12.6 percent and 8.4 percent of Los Angeles County and Orange County, respectively, are limited English-speaking households.

[19] The Los Angeles County and Orange County total minority population percentages are 75.5 percent and 59.4 percent, respectively.

Table 9: Disadvantaged Community Designation – Study Area 1B[20]

Census Tract	Population	Segment(s) Crossed	CalEnviroScreen Designation	CEJST Designation
6037900507	7,333	G	N/A[21]	DAC
6037900506	4,188	G	N/A	N/A
6037900505	3,427	G	N/A	DAC
6037900201	1,129	G	CalEnviroScreen 4.0 Top 25	N/A
6037900501	7,225	G	CalEnviroScreen 4.0 Top 25	DAC
6037910201	4,063	G	N/A	DAC
6037910401	6,359	B and G	N/A	N/A
6037910208	6,210	G	N/A	N/A
6037900508	4,016	G	N/A	DAC
6037910205	1,225	B and G	N/A	N/A
6037910202	5,823	G	N/A	N/A
6037900504	7,261	G	N/A	N/A
6037900704	2,910	G	N/A	DAC
6037900705	3,980	G	N/A	N/A
6037910813	4,080	B	N/A	N/A
6037920314	2,920	B	N/A	N/A
6037920042	6,990	B	N/A	N/A
6037910809	2,070	B	N/A	N/A
6037910808	3,445	B	N/A	N/A
6037920037	10,272	B	N/A	DAC
6037920041	1,668	B	N/A	N/A
6037920031	4,343	B	N/A	N/A
6037910811	179	B	N/A	N/A
6037910804	2,964	B	N/A	N/A
6037920043	7,130	B	N/A	N/A
6037910810	2,599	B	N/A	N/A
6037920337	6,943	B and B, K	N/A	DAC
6037106603	3,156	B, K	N/A	N/A

[20] Each row that is shaded is considered a DAC.
[21] N/A indicates that the Census tract identified is not in a DAC in the designated screening tool.

Census Tract	Population	Segment(s) Crossed	CalEnviroScreen Designation	CEJST Designation
6037106510	5,618	B, K	CalEnviroScreen 3.0 DAC	N/A
6037920312	5,826	B and B, K	N/A	N/A
6037930200	461	B and B, K	N/A	DAC
6037920332	2,438	B	N/A	N/A
6037980022	0	B, K	N/A	N/A

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

Table 10: Low-Income/Poverty Conditions – Study Area 1B

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below the Poverty Line
Los Angeles County	N/A	$68,044	6.1	14.9
6037106510	B,K	$85,521	1.8	8.3
6037106603	B,K	$112,404	3.3	3.7
6037900201	G	$49,625	6.4	19.4
6037900501	G	$55,166	7.2	22.5
6037900504	G	$58,949	3.0	16.3
6037900505	G	$40,556	18.9	29
6037900506	G	$56,290	7.7	26
6037900507	G	$45,196	5.4	24.4
6037900508	G	$71,458	4.7	26.4
6037900704	G	$42,330	5.2	19.5
6037900705	G	$47,538	3.5	16.3
6037910201	G	$57,593	9.6	20.5
6037910202	G	$110,692	6.3	7.8
6037910205	B and G	$65,431	5.0	15.7
6037910208	G	$72,619	7.5	10
6037910401	B and G	$80,750	6.7	4.6
6037910804	B	$97,326	4.1	7
6037910808	B	$117,813	5.6	0.8
6037910809	B	$147,639	7.8	4.1
6037910810	B	$147,917	3.1	4.3
6037910811	B	$121,771	0.0	0
6037910813	B	$105,703	4.4	7.9
6037920031	B	$65,673	3.2	5.3
6037920037	B	$58,868	4.5	24.5
6037920041	B	$85,147	7.0	11.5
6037920042	B	$94,706	3.6	7.6
6037920043	B	$146,310	5.6	4.5
6037920312	B and B, K	$79,241	4.5	16.6

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below the Poverty Line
6037920314	B	$100,956	4.6	5
6037920332	B	$91,667	6.8	4.4
6037920337	B and B, K	$56,297	6.3	20.4
6037930200	B, K	$85,972	6.5	31
6037980022	B, K	N/A	N/A	N/A

Sources: U.S. Census Bureau 2019b, U.S. Census Bureau 2019d, U.S. Census Bureau 2019e

Based on 2019 Census data, the unemployment rate for the Census tracts that would be crossed by the segments in Study Area 1B ranges from 0.0 percent to 18.9 percent. The median unemployment rate for Los Angeles County is 6.1 percent. For Segment G, the unemployment rate ranges from 3.0 percent to 18.9 percent. For Segments B and B, K, the unemployment rates range from 0.0 percent to 7.8 percent and from 1.8 percent to 6.5 percent, respectively. The data show that eight tracts in Segments G, five tracts in Segment B, and two tracts in Segment B, K have higher unemployment rates than Los Angeles County.

The percentage of the population below the poverty line for the Census tracts that would be crossed by the segments in Study Area 1B ranges from 0.0 percent to 31.0 percent. The percentage of the population below the poverty line for Los Angeles County is 14.9 percent. Within Segment G, the percentage of population below the poverty line ranges from 4.6 percent to 29 percent. Within Segments B and B, K, the percentages of population below the poverty line range from 0.0 percent to 24.5 percent and from 3.7 percent to 31 percent, respectively. The data show that 11 tracts in Segment G, four tracts in Segment B, and three tracts in Segment B, K are above the median percentage of population below the poverty line for Los Angeles County.

3.2.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Los Angeles County that would be crossed by the segments in Study Area 1B are detailed in Table 11: Public Services – Study Area 1B.

Table 11: Public Services – Study Area 1B

County/Census Tract	Number of Public Schools	Number of Sheriff Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Los Angeles County	1,950	24	54	34	21,395

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.2.0.5 Minority/Ethnicity

The minority/ethnicity statistics of Los Angeles County and the Census tracts that would be crossed by the segments in Study Area 1B are detailed in Table 12: Minority/Ethnicity – Study Area 1B. The minority population percentage for Census tracts within the area of potential effect ranges from 20.8 percent to 86.2 percent. The total minority percentage in Los Angeles County is 74.5 percent. For Segment G, the total minority population percentage for Census tracts ranges from 47.8 percent to 83.7 percent. For Segments B and B, K, the minority population percentages range from 20.8 percent to 85.9 percent and from 31 percent to 68 percent, respectively. The data show that five tracts in Segments G, two tracts in Segment B, and two tracts in Segment B, K have higher minority percentage rates than the Los Angeles County average.

Table 12: Minority/Ethnicity – Study Area 1B

County/ Census Tract	Segment(s)	Percentage							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
Los Angeles County	N/A	29.4	7.6	1.4	15.0	0.3	25.8	49.0	75.5
6037106510	B,K	73.1	5.1	0.8	7.8	0.0	10.0	72.6	86.2
6037106603	B,K	66.1	2.2	0.0	23.2	1.2	3.4	17.4	47.3
6037900201	G	84.7	2.5	1.9	4.7	0.0	2.9	41.7	52.0
6037900501	G	59.2	24.4	0.5	4.4	0.0	7.6	47.9	80.1
6037900504	G	62.9	20.4	0.0	6.1	0.0	7.5	51.4	78.3
6037900505	G	63.8	24.4	0.5	2.3	0.0	6.0	42.8	71.6
6037900506	G	49.8	35.3	0.7	0.3	0.0	6.2	44.7	83.7
6037900507	G	66.4	16.6	0.0	7.2	0.0	7.7	45.7	70.8
6037900508	G	65.4	21.4	0.1	1.5	0.0	6.3	47.6	74.7
6037900704	G	39.2	44.9	0.5	10.4	1.3	1.6	18.2	76.2
6037900705	G	63.8	16.2	2.7	1.9	0.0	11.2	30.2	55.2
6037910201	G	45.2	6.3	0.0	3.8	0.0	35.0	53.9	68.5
6037910202	G	67.8	5.0	0.3	10.4	0.2	13.3	29.0	47.8
6037910205	B and G	54.7	1.9	1.6	8.3	1.7	23.4	51.8	68.8
6037910208	G	54.4	9.0	1.5	9.0	0.0	20.9	55.7	78.1
6037910401	B and G	50.7	6.1	1.0	11.1	0.0	20.7	43.5	65.7
6037910804	B	89.6	1.1	0.0	2.2	0.0	6.4	29.3	32.7
6037910808	B	83.9	5.5	0.0	0.6	0.0	3.4	25.4	36.0
6037910809	B	86.5	0.7	0.0	4.2	0.0	3.8	12.8	20.8

County/ Census Tract	Segment(s)	Percentage							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037910810	B	67.3	7.0	4.0	10.1	0.3	4.4	18.2	44.9
6037910811	B	83.2	8.9	0.0	0.0	0.0	1.1	15.6	27.9
6037910813	B	86.0	0.1	0.6	2.7	0.0	7.8	20.9	25.7
6037920031	B	74.2	5.5	0.7	8.7	0.0	5.3	31.9	49.0
6037920037	B	56.8	5.9	4.8	5.7	0.0	16.4	68.7	82.5
6037920041	B	70.5	3.7	0.0	7.5	0.0	7.0	62.9	75.0
6037920042	B	60.6	4.7	0.4	14.1	0.0	7.7	32.2	56.9
6037920043	B	57.6	4.8	0.0	26.4	0.2	5.3	25.7	61.3
6037920312	B and B, K	79.1	5.2	2.1	5.9	0.6	3.0	31.6	46.3
6037920314	B	75.1	1.7	1.1	6.2	0.0	9.8	28.0	38.8
6037920332	B	83.9	0.9	0.5	4.5	0.3	5.2	25.1	35.1
6037920337	B and B, K	66.5	6.0	0.7	9.9	0.2	9.4	68.0	85.9
6037930200	B, K	90.9	5.2	0.0	2.8	0.0	0.0	38.0	47.1
6037980022	B, K	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic white.
Source: U.S. Census Bureau 2019a

3.3 STUDY AREA 2

3.3.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes within Study Area 2 of Angeles Link. The corresponding cities and unincorporated areas are detailed in Table 13: Cities and Unincorporated Areas Crossed by Study Area 2.

Existing conditions for Study Area 2 were determined using data from the U.S. Census, CalEnviroScreen, and the CEJST.

3.3.0.1 Census Tract Statistics

Table 14: Census Tract Statistics by Segment Crossed – Study Area 2 provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 2. The table uses the data for Los Angeles and Orange counties as a baseline to compare the Census tracts. The table lists the percentage of Census tracts within the segment that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of Census tracts that would be crossed by each segment and that have a higher population percentage below the poverty line, linguistically isolated households, or minority population percentage when compared to the averages of the county where it is located.[22]

3.3.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 2 are detailed in Table 15: Disadvantaged Community Designation – Study Area 2. As indicated in the table, a total of 131 Census tracts would be crossed by Study Area 2. Of these 131 tracts, 88 are identified as DACs. Of these 88 tracts, Segment A would cross 28, Segment S would cross 13, Segment T would cross 39, Segment U would cross three, Segment V would cross four, and Segment W would cross 11.

3.3.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of Los Angeles and Orange counties and the Census tracts within Study Area 2 (e.g., household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are provided in Table 16: Low-Income/Poverty Conditions – Study Area 2. The median household income for Census tracts within Study Area 2 ranges from $13,500 to $156,394. The median household income for Los Angeles County and Orange County are $68,044 and $90,234, respectively. For Segment A, the median household income ranges from $13,500 to $156,394. For Segment S, the median household income ranges from $13,500 to $106,337. For Segment T, the median household income ranges from $18,177 to $80,708. For Segment U, the median household income ranges from $13,500 to $137,024.

[22] Nine of the 131 Census tracts that would be crossed by Study Area 2 did not have sufficient data to determine the population below the poverty line, linguistic isolation, or minority population. These communities were not included in the calculation of the percentage.

Table 13: Cities and Unincorporated Areas Crossed by Study Area 2

Segment	Segment Length (Miles)	Jurisdiction	Miles Crossed through Jurisdiction
A	24.4	City of Carson	1.8
		City of El Segundo	1.8
		City of Hawthorne	<0.1
		City of Long Beach	1.2
		City of Los Angeles	8.7
		City of Manhattan Beach	1.0
		City of Redondo Beach	3.5
		City of Torrance	2.6
		Unincorporated Los Angeles County	3.7
S	9.1	City of Long Beach	8.7
		City of Los Angeles	0.4
T	11.6	City of Inglewood	1.6
		City of Los Angeles	4.6
		City of South Gate	2.7
		Unincorporated Los Angeles County	2.8
U	6.9	City of Lakewood	1.0
		City of Long Beach	5.6
		City of Seal Beach	0.3
V	2.9	City of El Segundo	2.7
		City of Los Angeles	0.2
W	5.4	City of Carson	3.4
		City of Los Angeles	2.0

Source: California Governor's Office of Emergency Services 2023

Table 14: Census Tract Statistics by Segment Crossed – Study Area 2

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low Income[23]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[24]	Percentage of Census Tracts Above the County Total Minority Population Percentage[25]
A	60.9	35.7	35.7	61.9
S	56.5	45.5	13.6	27.3
T	97.5	80.0	70.0	100.0
U	17.6	6.7	14.3	14.3
V	57.1	25.0	0.0	25.0
W	91.7	50.0	40.0	100.0

Sources: OEHHA 2021; U.S. Council on Environmental Quality 2022; U.S. Census Bureau 2019a, 2019b, 2019d.

For Segment V, the median household income ranges from $80,077 to $131,824. For Segment W, the median household income ranges from $36,719 to $86,435. The data show that 26 tracts in Segment A, seven tracts in Segment S, two tracts in Segment T, 12 tracts in Segment U, four tracts in Segment V, and four tracts in Segment W are below the median household income for the county where the tract is located.

The unemployment rate for the Census tracts that would be crossed by the segments in Study Area 2 ranges from 0 percent to 20.2 percent. The median unemployment rate for Los Angeles County and Orange County are 6.1 percent and 4.6 percent, respectively. The unemployment rate for Segment A ranges from 0 percent to 20.2 percent. For Segment S, the unemployment rate ranges from 0 percent to 12.2 percent. The unemployment rate for Segment T ranges from 3.2 percent to 18.4 percent. For Segment U, the unemployment rate ranges from 0 percent to 20.2 percent. The unemployment rate for Segment V ranges from 3.4 percent to 6.4 percent, and for Segment W, the range is 1.5 percent to 9.7 percent. The data show that 11 tracts in Segment A, seven tracts in Segment S, 31 tracts in Segment T, two tracts in Segment U, one tract in Segment V, and six tracts in Segment W have higher unemployment rates than the county where the tract is located.

The percentage of the population below the poverty line for the Census tracts that would be crossed by the segments in Study Area 2 ranges from 1.5 percent to 72 percent. The percentages of the population below the poverty line for Los Angeles County and Orange County are 14.9 percent and 10.9 percent, respectively.

[23] Approximately 14.9 percent and 10.9 percent of the Los Angeles County and Orange County populations, respectively, are below the poverty line or are low income.
[24] Approximately 12.6 percent and 8.4 percent of Los Angeles County and Orange County, respectively, are limited English-speaking households.
[25] The Los Angeles County and Orange County total minority population percentages are 75.5 percent and 59.4 percent, respectively.

Table 15: Disadvantaged Community Designation – Study Area 2[26]

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037238000	6174	T	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037240401	6379	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037240402	3763	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037240500	7326	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037240600	6167	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037240700	6596	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037241110	3356	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037241120	5146	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037241201	3015	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037242000	4189	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037242100	2852	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037242200	6402	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037242300	4952	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037242700	6035	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037243000	6829	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037291300	3037	A	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037292000	6567	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037293306	2436	A	N/A	N/A
6037293307	2284	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294110	4129	W	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294120	2687	W	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294302	4382	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294410	5079	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294421	2891	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294610	4334	W	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294620	4683	W	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294701	3099	A, W	CalEnviroScreen 4.0 Top 25 Percent	DAC

[26] Each shaded row is considered a DAC.

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037294810	4278	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294820	3473	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294830	4134	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037294900	3853	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535200	6111	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535400	3553	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535604	4476	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535605	4440	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535606	2007	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535607	4946	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535802	6600	T	N/A	DAC
6037535803	4246	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535804	5328	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535901	5578	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535902	7209	T	CalEnviroScreen 3.0 Disadvantaged Communities Only	DAC
6037536103	5353	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037536104	3900	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037540201	2587	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037543304	5872	W	N/A	N/A
6037543305	3776	W	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037543306	7863	W	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037543501	7457	A	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037543502	4218	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037543503	5696	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037543601	3781	A	N/A	N/A
6037543602	7864	A	N/A	DAC
6037543603	4301	A	N/A	N/A
6037543604	5226	A	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6037543903	3740	W	CalEnviroScreen 4.0 Top 25 Percent	DAC

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037543905	4636	W, A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037554522	4944	U	N/A	N/A
6037555001	5321	U	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037555002	3625	U	N/A	N/A
6037571000	5628	U	N/A	N/A
6037572600	5357	A	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037572700	5268	A	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037572800	986	A, U	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037573800	4309	U	N/A	N/A
6037574000	5165	U	N/A	N/A
6037574400	5474	U	N/A	N/A
6037574500	6631	S, U	N/A	N/A
6037574602	1291	S, U	N/A	N/A
6037575401	4788	S	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037575500	93	S, A	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	DAC
6037575801	2254	S	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037575802	5664	S	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037575901	3553	S	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037575902	5208	S	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037576001	5174	S	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037576200	5324	S	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037576501	2986	S	N/A	DAC
6037576502	4658	S	N/A	DAC
6037576503	4469	S	N/A	N/A
6037576601	4293	S	N/A	N/A
6037576700	3935	S	N/A	N/A
6037576801	4070	S	N/A	N/A
6037576802	4061	S	N/A	N/A
6037577100	7185	S	N/A	N/A

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037577602	3259	S, U	N/A	N/A
6037577603	8457	S	N/A	N/A
6037600201	5063	T	N/A	DAC
6037600202	7767	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037600302	3086	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037600400	4147	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037600601	2653	T	N/A	N/A
6037600602	2542	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037601501	3918	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037601502	4059	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037601801	2834	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037601802	3945	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037601900	4847	T	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037602200	7200	A, V	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037602302	4819	A, V	N/A	N/A
6037620002	3493	V	N/A	N/A
6037620102	3355	V	N/A	N/A
6037620400	5279	A	N/A	N/A
6037620501	5726	A	N/A	N/A
6037620522	5024	A	N/A	N/A
6037620602	5040	A	N/A	N/A
6037620701	7211	A	N/A	N/A
6037620702	7375	A	N/A	N/A
6037620800	7844	A	N/A	N/A
6037621201	6724	A	N/A	N/A
6037650101	6018	A	N/A	N/A
6037650200	5930	A	N/A	N/A
6037650300	6824	A	N/A	N/A
6037650401	4758	A	N/A	N/A
6037650501	3044	A	N/A	N/A

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037650502	4259	A	N/A	N/A
6037980002	0	A, W	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980005	0	A	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980006	0	U	N/A	N/A
6037980007	0	S, U	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980013	0	A, V	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980014	0	A, S	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980015	671	A	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6037980025	0	W	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980028	0	A, T, V	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980030	0	V	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980033	16	S	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	DAC
6059099509	3352	U	N/A	N/A
6059099510	4449	U	N/A	N/A
6059110007	5148	U	N/A	N/A
6059110008	4486	U	N/A	N/A

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022.

Table 16: Low-Income/Poverty Conditions – Study Area 2

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Los Angeles County	N/A	$68,044	6.1	14.9
6037238000	T	$61,773	10.6	12.1
6037240401	T	$42,662	5.6	31.7
6037240402	T	$42,422	6.7	28.9
6037240500	T	$40,764	12.7	28.9
6037240600	T	$43,250	15.7	25.6
6037240700	T	$43,584	6.3	18
6037241110	T	$47,090	4.5	17.2
6037241120	T	$35,114	7.3	37
6037241201	T	$48,864	8	24.5
6037242000	T	$30,698	11.7	34.7
6037242100	T	$18,177	18.4	65.9
6037242200	T	$28,313	10.8	38.4
6037242300	T	$26,515	12.5	48
6037242700	T	$46,492	8.6	25.6
6037243000	T	$51,479	13.7	23.5
6037291300	A	$81,281	2	3.4
6037292000	A	$42,135	4.7	31.3
6037293306	A	$100,200	1.7	3.7
6037293307	A	$51,379	7.6	25.7
6037294110	W	$51,011	9.3	13.9
6037294120	W	$57,159	8.7	26
6037294302	A	$55,313	4.2	17.4
6037294410	A	$50,926	11.7	27.4
6037294421	A	$47,917	10.4	22.7
6037294610	W	$49,773	1.5	23.4
6037294620	W	$44,148	8	17.1
6037294701	A, W	$36,719	4.9	32.4

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6037294810	A	$49,952	5.8	26.6
6037294820	A	$39,400	11.6	23.4
6037294830	A	$44,527	5.3	28.6
6037294900	A	$42,150	4.5	22.7
6037535200	T	$52,011	8.7	19.5
6037535400	T	$44,205	8.9	21.8
6037535604	T	$51,172	11.4	20.3
6037535605	T	$46,081	13.4	20.4
6037535606	T	$45,208	7.7	15.4
6037535607	T	$46,081	6.9	18.7
6037535802	T	$53,545	7.7	13.6
6037535803	T	$49,813	7.4	14.4
6037535804	T	$45,739	8.5	29.2
6037535901	T	$51,968	9.4	18.6
6037535902	T	$72,689	4.8	8.1
6037536103	T	$59,933	11.8	15.2
6037536104	T	$49,444	9.9	18.1
6037540201	T	$34,855	14.3	29.1
6037543304	W	$86,435	9.7	6.2
6037543305	W	$71,750	3.7	6.1
6037543306	W	$77,426	8.4	8
6037543501	A	$72,548	6	8.4
6037543502	A	$82,132	5.3	16.9
6037543503	A	$74,375	3.6	13.8
6037543601	A	$79,500	10.8	9.6
6037543602	A	$71,582	4.3	5.3
6037543603	A	$70,658	5.2	5.5
6037543604	A	$98,704	4.2	3.6
6037543903	W	$71,667	4.9	5.8

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6037543905	W, A	$66,250	6.2	19.7
6037554522	U	$114,375	4.6	6
6037555001	U	$76,149	5.8	12.2
6037555002	U	$82,011	2.7	8.7
6037571000	U	$105,758	4.5	3.6
6037572600	A	$65,625	10.6	12.6
6037572700	A	$68,500	8.2	14.3
6037572800	A, U	$13,500	20.2	62.5
6037573800	U	$116,146	3.2	5.2
6037574000	U	$137,909	2.5	3.2
6037574400	U	$122,262	4	3.6
6037574500	S, U	$100,096	2.8	3
6037574602	S, U	$94,688	0	8.8
6037575401	S	$32,452	7.4	30.2
6037575500	S, A	$14,271	0	72
6037575801	S	$36,573	6.9	27.6
6037575802	S	$39,432	12.2	32.6
6037575901	S	$54,799	8	22.7
6037575902	S	$44,855	7	20.6
6037576001	S	$80,462	4.3	7
6037576200	S	$35,870	11.3	35.5
6037576501	S	$36,742	6.4	26.4
6037576502	S	$54,162	3.9	16.3
6037576503	S	$57,679	4.6	11.5
6037576601	S	$55,768	6.1	13.2
6037576700	S	$73,041	4.3	10.3
6037576801	S	$49,982	3.8	20.5
6037576802	S	$62,240	4.2	10.7
6037577100	S	$79,235	1.9	7.6

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6037577602	S, U	$90,583	4.9	7.7
6037577603	S	$106,337	3.1	9.4
6037600201	T	$35,081	5.3	31.4
6037600202	T	$34,819	7.7	27.3
6037600302	T	$57,188	9	12.1
6037600400	T	$64,625	12.8	13.6
6037600601	T	$80,708	7.4	10.5
6037600602	T	$42,143	6.9	21.5
6037601501	T	$42,794	6	25.7
6037601502	T	$59,239	4.2	23.9
6037601801	T	$40,870	6.1	21.4
6037601802	T	$63,692	4.6	7.6
6037601900	T	$50,933	3.2	24
6037602200	A, V	$80,077	3.4	16.4
6037602302	A, V	$131,824	6.4	3.9
6037620002	V	$111,688	5.9	6.5
6037620102	V	$97,396	6.1	8.9
6037620400	A	$138,906	9.5	3.7
6037620501	A	$116,602	3.3	4.2
6037620522	A	$121,000	2.4	4.3
6037620602	A	$129,417	2.9	2.1
6037620701	A	$107,722	2.5	3.7
6037620702	A	$155,069	1.9	2.3
6037620800	A	$156,394	5.4	2.6
6037621201	A	$120,022	5.6	4.8
6037650101	A	$112,611	5.7	7.5
6037650200	A	$97,054	3.5	7.1
6037650300	A	$71,250	4.3	9
6037650401	A	$137,024	5.3	4.8

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6037650501	A	$115,174	3.7	1.5
6037650502	A	$118,558	2.4	7
6037980002	A, W	N/A	N/A	N/A
6037980005	A	N/A	N/A	N/A
6037980006	U	N/A	N/A	N/A
6037980007	S, U	N/A	N/A	N/A
6037980013	A, V	N/A	N/A	N/A
6037980014	A, S	N/A	N/A	N/A
6037980015	A	$66,000	0	11.5
6037980025	W	N/A	N/A	N/A
6037980028	A, T, V	N/A	N/A	N/A
6037980030	V	N/A	N/A	N/A
6037980033	S	N/A	N/A	N/A
Orange County	N/A	$90,234	4.6	10.9
6059099509	U	$39,471	0	7.8
6059099510	U	$36,884	1.9	9.9
6059110007	U	$128,674	7.4	4.1
6059110008	U	$105,227	4.1	1.5

Sources: U.S. Census Bureau 2019c, 2019d, 2019e

For Segment A, the percentage of the population below the poverty line ranges from 1.5 percent to 72 percent; and for Segment S, the percentage of the population below the poverty line ranges from 3 percent to 72 percent. The percentage of population below the poverty line for Segment T ranges from 7.6 percent to 65.9 percent; for Segment U, from 1.5 percent to 62.5 percent; for Segment V, from 3.9 percent to 16.4 percent; and for Segment W, from 5.8 percent to 32.4 percent. The data show that 15 tracts in Segment A, ten tracts in Segment S, 32 tracts in Segment T, one tract in Segment U, one tract in Segment V, and five tracts in Segment W are above the median percentage of population below the poverty line for the county where the tract is located.

3.3.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Los Angeles County and Orange County that would be crossed by the segments in Study Area 2 are detailed in Table 17: Public Services – Study Area 2.

Table 17: Public Services – Study Area 2

County/ Census Tract	Segment	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Los Angeles County	A, S, T, U, V, W	1,950	24	54	34	21,395
Orange County	U	647	1	24	14	6,098

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023.

3.3.0.5 Minority/Ethnicity

The minority/ethnicity statistics of Los Angeles County and Orange County and the Census tracts that would be crossed by the segments in Study Area 2 are detailed in Table 18: Minority/Ethnicity Percentages – Study Area 2. The minority population percentage for the Census tracts within Study Area 2 ranges from 28 percent to 100 percent. The total minority percentages for Los Angeles County and Orange County are 75.5 percent and 59.4 percent, respectively. For Segment A, the minority population percentage ranges from 31.7 percent to 99.3 percent. The minority population percentage for Segment S ranges from 33.1 percent to 100.0 percent; for Segment T, from 96.4 percent to 100.0 percent; for Segment U, from 28.0 percent to 84.7 percent; for Segment V, from 34.9 percent to 78.0 percent; and for Segment W, from 81.1 percent to 98.0 percent. The data show that 26 tracts in Segment A, six tracts in Segment S, 40 tracts in Segment T, three tracts in Segment U, one tract in Segment V, and ten tracts in Segment W have higher minority population percentage rates than the county averages.

Table 18: Minority/Ethnicity Percentages – Study Area 2

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
Los Angeles County	N/A	29.4	7.6	1.4	15.0	0.3	25.8	49.0	75.5
6037238000	T	10	68.4	0	1.1	0.7	11.4	21.6	98.4
6037240401	T	42.8	18.7	0	0.7	0	36	80.7	99.8
6037240402	T	29.1	34.4	0	1.1	0	33.1	64.1	98.6
6037240500	T	38.5	26.7	0.2	0	0	33.7	72.1	100
6037240600	T	35.4	29.1	0	0.3	0	35	69.3	98.7
6037240700	T	48	27.6	0.5	1.2	0	22.2	71.1	99.7
6037241110	T	51.5	26	1.1	0.1	0	21.3	73.7	99.1
6037241120	T	44.3	26.2	5.9	1.7	0	21	70.5	99.3
6037241201	T	28.9	41.1	0	0.6	0	29.1	57	98.9
6037242000	T	35.2	19.9	1.9	0.4	0	40	76	96.8
6037242100	T	49.9	24.4	2.9	0	1.4	21.2	75.8	99.9
6037242200	T	36.1	24.8	0.2	0.2	0	37	75.7	99.8
6037242300	T	28.7	15.7	4.5	6.4	0.2	44.2	74	99.6
6037242700	T	36.6	23.9	0	0.2	0	35.3	75.7	98.9
6037243000	T	36	11.8	5.2	0.6	0	43.5	83.1	99.5
6037291300	A	30.1	9.5	0.4	44.3	1.1	7	24.6	85.3

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6037292000	A	17	11.7	0	17.9	0.2	45.3	55.4	92.5
6037293306	A	58	5	0	13.1	0	18.1	44.6	65.7
6037293307	A	30.8	10.2	0	17.3	0	37	60.6	88.7
6037294110	W	51.6	0	0.8	3	0.6	37.6	84.7	90.5
6037294120	W	52.5	3.4	3.9	2	0	31.1	92.5	98
6037294302	A	44.1	4.4	5.2	1.7	1.3	39.8	86.1	93.5
6037294410	A	28.6	26	0.5	20.3	7.1	14.3	38.4	91.5
6037294421	A	47.7	4.6	0	14	0	30.8	74.1	91.7
6037294610	W	47.6	1	6.6	5.7	0	38.3	90.3	96.7
6037294620	W	66.8	1.5	1.2	0	1.4	25.6	93.2	96.7
6037294701	A, W	58.8	4.9	4.2	0.6	0	29	90.3	97.2
6037294810	A	46.4	2.5	0.1	2.1	1.3	43	90.8	97.5
6037294820	A	54.9	1.2	4.2	2	0	36.5	96.7	99.3
6037294830	A	50	3.7	3	0.8	0	35.2	93.5	99.2
6037294900	A	55.3	3.6	4.7	3	0.5	29.2	87.6	96.4
6037535200	T	45.3	12.7	0	0	0	37.4	88.1	99.9
6037535400	T	66.1	9.5	0	0.2	0	23.9	89.4	99.4
6037535604	T	63.3	0.4	0.3	0	0	35.4	99.4	99.4
6037535605	T	64.4	0	0	0.2	0	35.4	99.4	99.4

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6037535606	T	67.5	0.7	0.5	0	0	30.2	97.3	98.1
6037535607	T	73	0.4	0.5	0	0	26.1	99	99.5
6037535802	T	67.1	0.2	0	0	0.5	30.3	95.6	96.4
6037535803	T	56.9	0	1.6	0.1	0	41.1	98.9	99.1
6037535804	T	61.8	1	2	0	0	32.7	97.7	98.9
6037535901	T	57.7	0	0	0	0	41.4	99.3	99.3
6037535902	T	62.1	0.1	0	0.5	1	34.4	95.7	97.4
6037536103	T	52.5	0.2	2.6	0.1	0	40.1	96.5	97.8
6037536104	T	68.4	1.5	0.5	0.8	0	27.4	93.7	96.7
6037540201	T	74.9	0.8	0.3	0.6	0	21.2	98	99.7
6037543304	W	11.1	81.9	0	3.2	0	1.3	6.2	92.1
6037543305	W	26.6	26	0	2.7	0.6	40.1	50.1	81.1
6037543306	W	25.4	14.4	0	38.6	6.5	9.3	28.8	92.4
6037543501	A	21.3	6.1	1.1	53.8	6	6.9	27.4	93.9
6037543502	A	28.9	3.2	0.6	29.5	0	33.3	56.1	90
6037543503	A	29.1	8.4	0	40.2	0.2	19.6	33.1	84.3
6037543601	A	26.8	9.3	0.8	35.1	4.3	17	42.6	94
6037543602	A	35.8	5.3	0	40.3	0.2	14.5	30.3	81.1
6037543603	A	30.5	28.3	0	27.3	1.4	4.5	21.9	81.6

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6037543604	A	25.1	7.9	0	48.1	0.1	12.5	31.4	91.8
6037543903	W	29.9	4	1	33.9	1.5	23.3	43.2	87
6037543905	W, A	43.7	4.3	0.5	14.1	3.5	31.1	75.3	97.2
6037554522	U	25	9.4	0.5	51.4	0	7.3	18	82.6
6037555001	U	33.9	5.8	0.7	30.8	0	22.4	47.4	84.7
6037555002	U	40.6	14.7	0.7	13.5	4.1	18.8	37.7	71.3
6037571000	U	74.6	4.3	0	10.4	0.1	2.5	25.7	41.8
6037572600	A	32.8	8.9	0.9	33.4	1.5	18	51.4	98.1
6037572700	A	26.3	6.7	0.5	46.4	3.1	11	38.2	97.5
6037572800	A, U	43.7	32.9	1.6	7.2	0.4	3.4	30.8	81
6037573800	U	72.7	2.3	5.6	6.7	1.3	3.3	19.2	38.7
6037574000	U	74.3	5	0.4	10.4	0	2.1	18.7	39.5
6037574400	U	81	4.5	0	8.3	0.2	1.8	23.2	39.7
6037574500	S, U	72.8	6.3	0.7	9	0.3	6.3	16.8	35.4
6037574602	S, U	76.3	1.5	0	14.2	0	3.3	19.3	39.7
6037575401	S	57.3	9.9	3.9	2.4	0	23.2	80.5	93.4
6037575500	S, A	40.9	0	0	0	0	59.1	87.1	87.1
6037575801	S	55.3	11.8	3.6	4.1	0	23.5	74.5	88
6037575802	S	49.2	8.1	5	5.4	2.5	25.8	72.4	89.4

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6037575901	S	47.6	20.1	2	7.5	0	17	50.6	81.6
6037575902	S	62.7	15.4	1.1	8	0	8.7	35	62
6037576001	S	60.2	13.7	0.3	19	1.4	1.6	12.7	49.1
6037576200	S	49.2	20.2	3.9	6.8	0.7	13.2	35.1	70.2
6037576501	S	56.1	12.5	0	8	0.5	15.6	43.1	72.3
6037576502	S	54.3	13.2	3.7	6.6	0	16	48.5	67.9
6037576503	S	58.2	16.4	2.1	5.6	0	10.4	39.8	67.2
6037576601	S	66.7	10.4	0	2.4	1	16.1	30.7	46.2
6037576700	S	73.7	8.9	0.4	9.8	0.1	3	15.4	37.6
6037576801	S	60.5	12.5	0	11.1	0	11.2	39.2	62.9
6037576802	S	50.5	27.1	0.9	11.1	0.3	6.1	19.1	59.5
6037577100	S	72	7.9	0.4	9	0	4.6	26.5	46
6037577602	S, U	71.5	4.8	0.4	14.8	0	2.5	10.1	33.1
6037577603	S	77.9	4.9	0.7	9.5	1.6	1.4	15.5	34
6037600201	T	38.9	41.3	0.6	0	0	18.3	56.3	98.7
6037600202	T	40	34.7	0.7	0.1	0	24.1	64.1	98.3
6037600302	T	28	62	3.3	0.4	0	4.3	37.1	99.5
6037600400	T	12.6	78.1	0	0	0	6.2	15.7	97.6
6037600601	T	3.8	81.6	0.3	0.1	0	7.4	13.1	97.7

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6037600602	T	29.7	35.1	0.9	1.7	0	30.7	62.4	97.6
6037601501	T	49.2	5.1	0.5	0	4.9	38	88.4	98.7
6037601502	T	56.4	1.9	0.9	2.9	0	35.7	93.8	97.4
6037601801	T	60	2.2	0.5	1.5	0	35	95.6	99.8
6037601802	T	48.7	3.6	0.2	3	0	43.8	90.4	97.2
6037601900	T	43.1	12.7	1.2	0.2	0	40.1	84.8	99.3
6037602200	A, V	49.5	15.8	0	9	1.6	15.7	46.2	78
6037602302	A, V	63.9	2	0	21.4	0	1.7	17.1	46.5
6037620002	V	70.1	0	0	17.7	0	6	14.5	38
6037620102	V	75.6	1.1	0.9	5	0.3	8.4	20.4	34.9
6037620400	A	75.4	0	0	16.7	0	1.7	9.4	31.7
6037620501	A	62.1	6.9	1	13.5	0.4	4.8	15.1	44.4
6037620522	A	63.9	1.9	0.7	15.5	0	8.6	16.2	46
6037620602	A	76.7	0	0.3	16.3	0	1.5	19.4	40.9
6037620701	A	71.4	6.7	0.6	11.4	0	2.6	14.8	41
6037620702	A	72.7	3.6	0.2	15.4	0.2	2.1	14.8	39.3
6037620800	A	68	0.8	0	23	0.2	2.8	9.7	36.9
6037621201	A	74.4	2.1	0.6	10.6	0	3.9	25.5	43.2
6037650101	A	24.6	1.3	0.9	52.1	0.9	7.8	22.9	82.2

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6037650200	A	53.1	1.4	0.6	27.9	0.2	8.7	28.1	62.3
6037650300	A	43.8	5.2	4.6	32	0.8	8	24.7	68.5
6037650401	A	51.7	1	0.3	33.7	0	5.7	15.6	55.5
6037650501	A	64.2	0	0.4	28.6	0	1.5	15.1	48.6
6037650502	A	51.2	4.9	0	29.1	0	10.2	22	57.3
6037980002	A, W	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980005	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980006	U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980007	S, U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980013	A, V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980014	A, S	44.4	0	0	0	0	55.6	55.6	55.6
6037980015	A	27.1	35.5	0	19.7	0.1	8	28.5	90.6
6037980025	W	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980028	A, T, V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980030	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980033	S	0	0	100	0	0	0	0	100
Orange County	N/A	61.0	1.80	0.50	20.5	0.30	11.9	34.1	59.4
6059099509	U	76.8	1.8	1.4	19.1	0	0.9	7.3	29.7
6059099510	U	78	2.4	0	16.5	0.9	0.3	6.7	28

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6059110007	U	80.7	2.3	0	11	0.3	2.4	13.9	29.5
6059110008	U	75.3	2.4	1	11	1.1	0.1	14.4	34.6

Source: U.S. Census Bureau 2019a.

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic white.

3.4 STUDY AREA 3A

3.4.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes within Study Area 3A. The corresponding jurisdictions are detailed in Table 19: Jurisdictions Crossed by Study Area 3A.

Table 19: Jurisdictions Crossed by Study Area 3A

Segment	Jurisdiction	Miles Crossed through Jurisdiction
D	City of Carson	0.3
	City of Cerritos	0.2
	City of Lakewood	3.5
	City of Long Beach	2.8
	Unincorporated Los Angeles County	0.6
J	City of Anaheim	8.8
	City of Buena Park	2.9
	City of Cerritos	0.6
	City of La Palma	1.7
	City of Lakewood	1.7
	City of Placentia	2.8
	City of Yorba Linda	4.1
	Unincorporated Orange County	1.4

Existing conditions for Study Area 3A were determined using U.S. Census data, CalEnviroScreen data, and CEJST data.

3.4.0.1 Census Tract Statistics

Table 20: Census Tract Statistics by Segment Crossed – Study Area 3A provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 3A. The table uses the data for Los Angeles and Orange counties as a baseline to compare the Census tracts. The table lists the percentage of Census tracts within Study Area 3A that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of Census tracts that would be crossed by each segment that have a higher percentage of population

below poverty, linguistically isolated households, or minority population percentage when compared to the averages of the counties in which they are located.[27]

Table 20: Census Tract Statistics by Segment Crossed – Study Area 3A

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[28]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[29]	Percentage of Census Tracts Above the County Total Minority Population Percentage[30]
D	39.1	13.6	4.5	54.5
J	42.2	33.3	46.7	73.3

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022, U.S. Census Bureau 2019a, U.S. Census Bureau 2019b, U.S. Census Bureau 2019c

3.4.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 3A is detailed in Table 21: Disadvantaged Community Designation – Study Area 3A. As indicated in the table, a total of 66 Census tracts would be crossed by pipeline segments within Study Area 3A. Of these 66 tracts, 27 are identified as DACs. Of these 27 tracts, Segment D would cross nine and Segment J would cross 19.

3.4.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the county and Census tracts within Study Area 3A (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are detailed in Table 22: Low-Income/Poverty Conditions – Study Area 3A. The median household income for Census tracts within the area of potential effect in Study Area 3A ranges from $19,425 to $170,345. The median household incomes for Los Angeles County and Orange County are $68,044 and $90,234, respectively.

For Segments D and J, the median household incomes range from $19,425 to $115, 536 and from $46,148 to $170,345, respectively. The data show that six tracts in Segment D and 19 tracts in Segment J are below the median household income for the counties in which the tracts are located.

[27] One of the 66 Census tracts that would be crossed by pipeline segments within Study Area 3A did not have sufficient data to determine population below poverty, linguistic isolation, or minority population. These communities were not included in the calculation of the percentage.

[28] The Los Angeles County and Orange County average percentages of population below poverty/low income are 14.9 percent and 10.9 percent, respectively.

[29] The Los Angeles County and Orange County percentages of limited English-speaking households are 12.6 percent and 8.4 percent, respectively.

[30] The Los Angeles County and Orange County total minority population percentages are 75.5 percent and 59.4 percent, respectively.

Table 21: Disadvantaged Community Designation – Study Area 3A[31]

Census Tract	Population	Segment(s) Crossed	CalEnviroScreen Designation	CEJST Designation
6037543305	3,776	D	CalEnviroScreen 4.0 Top 25	N/A[32]
6037544001	4,574	D	CalEnviroScreen 4.0 Top 25	N/A
6037554515	3,793	J	N/A	N/A
6037554516	3,885	J	N/A	N/A
6037554519	3,498	J	N/A	N/A
6037554522	4,944	D, J	N/A	N/A
6037555001	5,321	D, J	CalEnviroScreen 4.0 Top 25	N/A
6037555102	5,987	J	CalEnviroScreen 3.0 Disadvantaged Communities Only	DAC
6037555103	4,873	J	N/A	N/A
6037570602	6,177	D	CalEnviroScreen 4.0 Top 25	N/A
6037570701	7,372	D	N/A	N/A
6037570702	2,296	D	N/A	N/A
6037570800	5,300	D	N/A	N/A
6037570901	5,752	D	N/A	N/A
6037570902	3,583	D	N/A	N/A
6037571000	5,628	D	N/A	N/A
6037571101	4,402	D	N/A	N/A
6037571200	8,175	D	N/A	N/A
6037571300	4,484	D	N/A	N/A
6037571400	4,844	D	N/A	N/A
6037571502	4,734	D	N/A	N/A
6037571503	3,878	D	N/A	N/A
6037571504	4,512	D	N/A	N/A
6037571600	2,309	D	CalEnviroScreen 4.0 Top 25	DAC
6037571701	6,247	D	CalEnviroScreen 4.0 Top 25	DAC
6037571703	3,557	D	CalEnviroScreen 4.0 Top 25	DAC
6037571704	4,076	D	CalEnviroScreen 4.0 Top 25	DAC

[31] Each row that is shaded is considered a DAC.
[32] N/A indicates that the Census tract identified is not in a DAC in the designated screening tool.

Census Tract	Population	Segment(s) Crossed	CalEnviroScreen Designation	CEJST Designation
6037980025	0	D	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6059011602	5,314	J	CalEnviroScreen 4.0 Top 25	DAC
6059011714	898	J	CalEnviroScreen 4.0 Top 25	N/A
6059011716	5,223	J	N/A	N/A
6059011720	6,573	J	CalEnviroScreen 4.0 Top 25	DAC
6059011722	2,295	J	N/A	N/A
6059021807	4,438	J	N/A	N/A
6059021812	6,535	J	N/A	N/A
6059021813	4	J	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	DAC
6059021816	4,966	J	N/A	N/A
6059021817	3,848	J	N/A	N/A
6059021821	7,772	J	N/A	N/A
6059021822	9,543	J	N/A	N/A
6059021823	4,238	J	N/A	N/A
6059021824	2,782	J	N/A	N/A
6059021825	2,940	J	N/A	N/A
6059021829	5,278	J	N/A	N/A
6059021830	5,943	J	N/A	N/A
6059086402	6,071	J	CalEnviroScreen 4.0 Top 25	N/A
6059086404	6,350	J	CalEnviroScreen 4.0 Top 25	DAC
6059086405	7,658	J	N/A	DAC
6059086501	4,254	J	CalEnviroScreen 4.0 Top 25	DAC
6059086502	6,318	J	CalEnviroScreen 4.0 Top 25	DAC
6059086601	9,185	J	CalEnviroScreen 4.0 Top 25	DAC
6059086602	6,447	J	CalEnviroScreen 4.0 Top 25	N/A
6059086701	9,045	J	CalEnviroScreen 4.0 Top 25	N/A
6059086702	8,069	J	CalEnviroScreen 4.0 Top 25	DAC
6059086801	3,878	J	N/A	N/A
6059086802	5,874	J	CalEnviroScreen 4.0 Top 25	DAC

Census Tract	Population	Segment(s) Crossed	CalEnviroScreen Designation	CEJST Designation
6059087102	7,084	J	CalEnviroScreen 4.0 Top 25	N/A
6059110102	5,785	J	N/A	N/A
6059110111	6,189	J	N/A	N/A
6059110116	4,698	J	N/A	N/A
6059110301	6,980	J	N/A	N/A
6059110302	5,975	J	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6059110303	4,661	J	N/A	N/A
6059110304	4,966	J	N/A	N/A
6059110401	4,906	J	N/A	N/A
6059110402	5,588	J	CalEnviroScreen 4.0 Top 25	DAC

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

Table 22: Low-Income/Poverty Conditions – Study Area 3A

County/Census Tract	Segment(s)	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Los Angeles County	N/A	$68,044	6.1	14.9
6037543305	D	$71,750	3.7	6.1
6037544001	D	$78,611	3.6	6.4
6037554515	J	$106,520	1.4	3.5
6037554516	J	$120,993	12.6	0.7
6037554519	J	$109,663	8.9	6.5
6037554522	D, J	$114,375	4.6	6
6037555001	D, J	$76,149	5.8	12.2
6037555102	J	$58,262	4.1	15.2
6037555103	J	$86,964	5.1	8.7
6037570602	D	$61,978	6	7.6
6037570701	D	$81,917	5.2	5.4
6037570702	D	$105,000	3.2	11.1
6037570800	D	$106,031	4.1	4.2
6037570901	D	$115,536	6.1	5.9
6037570902	D	$93,409	4.3	5.4
6037571000	D	$105,758	4.5	3.6
6037571101	D	$104,000	4.9	3
6037571200	D	$93,781	4.3	9.5
6037571300	D	$99,709	6.4	3.1
6037571400	D	$88,264	6.2	7.5
6037571502	D	$57,132	4.1	8.6
6037571503	D	$89,457	5	10
6037571504	D	$68,138	1.7	7.9
6037571600	D	$19,425	17.2	53.2
6037571701	D	$51,827	8.8	15.6
6037571703	D	$45,066	5.4	8.8
6037571704	D	$50,438	7.3	22.6
6037980025	D	N/A	N/A	N/A

County/Census Tract	Segment(s)	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Orange County	N/A	$90,234	4.6	10.9
6059011602	J	$53,556	5.6	17.9
6059011714	J	$70,769	3.2	3.6
6059011716	J	$149,583	6.7	6.7
6059011720	J	$46,148	6.2	30.8
6059011722	J	$48,929	7.7	13
6059021807	J	$104,750	6.9	5.7
6059021812	J	$125,500	0.4	5.8
6059021813	J	N/A	0	0
6059021816	J	$113,393	3.1	5.9
6059021817	J	$98,846	3.9	6.6
6059021821	J	$101,023	0.7	6.1
6059021822	J	$144,817	3.3	3.6
6059021823	J	$131,515	3.4	4.4
6059021824	J	$153,816	3.5	1.9
6059021825	J	$123,194	2.3	7.7
6059021829	J	$170,345	1.7	3.9
6059021830	J	$156,667	1.8	1
6059086402	J	$88,897	6.2	15.9
6059086404	J	$77,967	4.6	6.8
6059086405	J	$63,269	6.2	21.5
6059086501	J	$51,780	3.3	15.7
6059086502	J	$55,182	5	25.6
6059086601	J	$60,163	7.2	15.5
6059086602	J	$58,125	4.5	13.5
6059086701	J	$82,788	4.4	14.8
6059086702	J	$66,519	6.7	17.4
6059086801	J	$72,059	2.6	3.9
6059086802	J	$72,639	6.1	16.4
6059087102	J	$64,589	6.2	13.5
6059110102	J	$111,169	3.6	2.7

County/Census Tract	Segment(s)	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6059110111	J	$93,313	4.9	7.5
6059110116	J	$115,700	3.6	5.3
6059110301	J	$93,173	3.9	3.1
6059110302	J	$89,351	2.1	6.9
6059110303	J	$92,656	4.2	7.6
6059110304	J	$101,691	6.9	3.6
6059110401	J	$97,500	3.8	10.3
6059110402	J	$76,941	6.4	18.4

Sources: U.S. Census Bureau 2019b, U.S. Census Bureau 2019d, U.S. Census Bureau 2019e

The unemployment rate for Census tracts within Study Area 3A ranges from 0 percent to 17.2 percent. The median unemployment rate for Los Angeles County and Orange County are 6.1 percent and 4.6 percent, respectively. For segments D and J, the unemployment rates range from 1.7 percent to 17.2 percent and from 0 percent to 12.6 percent, respectively. The data shows that five tracts in Segment D and 17 tracts in Segment J have higher unemployment rates than the county in which the tract is located.

The percentage of the population below the poverty line for the Census tracts within Study Area 3A ranges from 0 percent to 53.2 percent. The percentage of the population below the poverty line for Los Angeles County and Orange County are 14.9 percent and 10.9 percent, respectively. Within Segment D and Segment J, the percentages of population below the poverty line range from 3 percent to 53.2 percent and from 0 percent to 30.8 percent, respectively. The data shows that three tracts in Segment D and 15 tracts in Segment J are above the median percentage of population below the poverty line for the county in which the tract is located.

3.4.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Los Angeles County and Orange County that would be crossed by the segments in Study Area 3A are identified in Table 23: Public Services – Study Area 3A.

Table 23: Public Services – Study Area 3A

County/ Census Tract	Segment(s)	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Los Angeles County	D, J	1,950	24	54	34	21,395
Orange County	J	647	1	24	14	6,098

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.4.0.5 Minority/Ethnicity

The minority/ethnicity statistics of the Los Angeles County and Orange County Census tracts that would be crossed by the segments in Study 3A are detailed in Table 24: Minority/Ethnicity Percentages – Study Area 3A. The minority population percentage for Census tracts within Study Area 3A ranges from 33.9 percent to 100 percent. The total minority percent for Los Angeles County and Orange County are 75.5 percent and 59.4 percent, respectively. For Segments D and J, the minority population percentages range from 41.8 percent to 94.2 percent and from 33.9 percent to 100 percent, respectively. The data show that 10 tracts in Segment D and 32 tracts in Segment J have higher percentage rates than the averages for the counties in which they are located.

Table 24: Minority/Ethnicity Percentages – Study Area 3A

County/ Census Tract	Segment(s)	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
Los Angeles County	N/A	29.4	7.6	1.4	15.0	0.3	25.8	49.0	75.5
6037543305	D	26.6	26	0	2.7	0.6	40.1	50.1	81.1
6037544001	D	56.1	6.3	0.8	11.3	5	15.4	69.4	93
6037554515	J	19.4	14.7	0	45.5	0.4	4.9	13.6	83.4
6037554516	J	17.3	14.9	0.3	60.1	0	4.2	16	89.3
6037554519	J	17.8	2.8	2.7	65.1	0.2	3.5	10.1	84.1
6037554522	D, J	25	9.4	0.5	51.4	0	7.3	18	82.6
6037555001	D, J	33.9	5.8	0.7	30.8	0	22.4	47.4	84.7
6037555102	J	19.7	9.6	0.9	26.1	1.2	38.6	50.9	89.7
6037555103	J	35.3	10.1	0	35.4	0	15.2	31.3	80.1
6037570602	D	26.8	11.9	2.1	30	0.8	23.6	48.9	92.8
6037570701	D	27.5	20	0	27.3	0	16.7	32.6	82.6
6037570702	D	46.7	15.9	3.5	12.5	0.3	16	35.4	72.8
6037570800	D	63.5	6.3	0.8	15.1	0.2	9.7	29.7	52.9
6037570901	D	58.3	5.9	1.2	15.3	0.3	11.2	27.6	53.4
6037570902	D	53.9	6.9	0	12.9	0	15.3	27.6	57.1
6037571000	D	74.6	4.3	0	10.4	0.1	2.5	25.7	41.8
6037571101	D	68.7	1.9	0	9	0.4	12.1	32.6	46.9

County/ Census Tract	Segment(s)	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037571200	D	62.4	8.2	1.3	13.1	0	7.7	27	52.2
6037571300	D	59.4	10.5	0	16.7	0.4	7.8	31.5	61.3
6037571400	D	53.1	10.1	0.4	19.3	0.5	12.2	31.6	63.5
6037571502	D	35.7	20.6	0.7	20.6	0.7	18	35.4	76.4
6037571503	D	30.7	18.9	0	26.1	0	15.9	35.5	81.7
6037571504	D	36.4	17.4	0	9.6	1.3	28.5	39.2	70.3
6037571600	D	14.6	52.6	0	2.6	0	28.7	33.4	94.2
6037571701	D	38.2	13.6	0	10.1	1.2	31.3	65.8	91.4
6037571703	D	28	14.4	2.6	10	0	41.5	66.7	93.7
6037571704	D	25.2	16.8	1	8.1	0	47.9	64.3	90.9
6037980025	D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Orange County	N/A	61.0	1.80	0.50	20.5	0.30	11.9	34.1	59.4
6059011602	J	68	1.8	0	4.6	0	24.5	79.8	87.2
6059011714	J	55.8	10.7	0	14.3	0	12.8	43.2	72.4
6059011716	J	51.5	0.2	0.2	38.5	0.9	3.6	28.1	70.1
6059011720	J	70.5	1.7	0	4.2	1	19.1	88.8	96.2
6059011722	J	62.5	3.1	0.9	19.3	0	8.5	36.3	58.5
6059021807	J	76.7	1.8	0.3	11.3	0	7.4	35.6	48.6
6059021812	J	85.3	0.3	0.6	8.3	0	2.2	32	43.8
6059021813	J	100	0	0	0	0	0	100	100

County/ Census Tract	Segment(s)	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6059021816	J	80.3	0	0.5	7.3	0	3.9	21	34.2
6059021817	J	87.9	0	0.5	6.2	0.4	0.5	28.6	39.7
6059021821	J	62.8	4.2	1.1	23.4	0	4.6	29.6	58.9
6059021822	J	55.7	1.4	0	36.2	0.1	2.2	10.5	50.3
6059021823	J	72	0	0.9	22.1	0.5	2.7	17.7	42.1
6059021824	J	79.1	0	0.1	11.4	0	0.4	14.7	34.6
6059021825	J	69.3	1.7	0	23.7	0	1.5	13.7	41
6059021829	J	65.4	0.5	0	32.1	0	0.7	13.6	47.1
6059021830	J	77.8	0.7	0	15.1	0	0.8	12.9	33.9
6059086402	J	81.8	0.5	0.2	10.8	0	5.1	71.5	83.9
6059086404	J	71.5	0.2	0	8	0	18.9	82.1	91
6059086405	J	74.4	1.3	0.7	9.8	0	12.7	76.4	88.1
6059086501	J	78.3	1.1	0	1.6	0	16.9	79.5	82.4
6059086502	J	81.5	0.2	0.2	0.7	0	16.7	94.4	95.7
6059086601	J	64.4	4	0.8	6.8	0.3	21	81.7	92.8
6059086602	J	64.9	2.1	0	11.3	0	18.7	66.9	82.6
6059086701	J	59	1	0	28.2	0	10.2	52.3	82
6059086702	J	59.5	4.3	1.5	10	0	19.8	70.6	87
6059086801	J	62.5	4	0	23.5	1.2	5.2	42.1	73.3
6059086802	J	61.9	2.9	0	20.5	0.1	14.1	57.6	82.1

County/ Census Tract	Segment(s)	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6059087102	J	66.1	6.7	2.2	11.3	0	11.8	66.4	87.9
6059110102	J	37.1	3.6	1.6	48.6	0	4.1	16.6	72.3
6059110111	J	48.4	6.3	0.5	39.4	0	1.4	22.4	71
6059110116	J	36.4	5.5	0	48.3	2.2	0.7	16.3	77.8
6059110301	J	50.3	3.8	0	34.5	0.3	3.4	24.8	69.6
6059110302	J	60.5	0.1	0.9	24.4	0.7	10.1	50.6	77.9
6059110303	J	58	1.5	0.3	30.4	0	5.8	30.8	65.5
6059110304	J	56.4	3.3	0.2	30.6	0	4.5	27	61
6059110401	J	53	2.3	6.8	24.9	1.3	6.8	42.8	74
6059110402	J	56.9	4.5	1.5	24.7	1.8	7.3	54.9	85.6

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic White.
Source: U.S. Census Bureau 2019a.

3.5 STUDY AREA 3B

3.5.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas may be crossed by the conceptual Angeles Link routes within Study Area 3B. The corresponding jurisdictions are detailed in Table 25: Jurisdictions Crossed by Study Area 3B.

Table 25: Jurisdictions Crossed by Study Area 3B

Segment	Jurisdiction	Miles Crossed through Jurisdiction
I,J	City of Chino	3.7
	City of Chino Hills	5.9
	City of Eastvale City	0.8
	City of Fontana	5.8
	City of Jurupa Valley	0.3
	City of Ontario	9.6
	City of Rialto	6.7
	Unincorporated Orange County	0.2
	Unincorporated San Bernardino County	2.8

Existing conditions for Study Area 3B were determined using U.S. Census data, CalEnviroScreen data, and CEJST data.

3.5.0.1 Census Tract Statistics

Table 26: Census Tract Statistics by Segment Crossed – Study Area 3B provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 3B. The table uses the data for Orange, Riverside, and San Bernardino counties to establish baselines against which to compare the Census tracts. The table details the percentages of Census tracts that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of Census tracts that would be crossed by each segment that have a higher percentage of population below poverty, linguistically isolated households, or minority population percentage when compared to the averages of the counties in which they are located.

3.5.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 3B is detailed in Table 27: Disadvantaged Community Designation – Study Area 3B. As indicated in the table, a total of 34 Census tracts would be crossed by pipeline segments within Study Area 3B. Of these 34 tracts, 19 are identified as DACs. Study Area 3B only includes Segment I, J.

Table 26: Census Tract Statistics by Segment Crossed – Study Area 3B

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[33]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[34]	Percentage of Census Tracts Above the County Total Minority Population Percentage[35]
I,J	55.9	17.6	52.9	79.4

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022, U.S. Census Bureau 2019a, U.S. Census Bureau 2019b, U.S. Census Bureau 2019c

3.5.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the county and Census tracts within Study Area 3B, (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are detailed in Table 28: Low-Income/Poverty Conditions – Study Area 3B. The median household income for Census tracts within the area of potential effect in Study Area 3B ranges from $41,438 to $144,817. The median household incomes for Orange County, Riverside County, and San Bernardino County are $90,234, $67,005, and $63,362, respectively. The data show that seven tracts in Segment I,J are below the median household income for the counties in which the tracts are located.

The unemployment rate for Census tracts within Study Area 3B ranges from 2.3 percent to 17.7 percent. The median unemployment rates for Orange County, Riverside County and San Bernardino County are 4.6 percent, 7.5 percent, and 7.7 percent, respectively. The data show that 15 tracts in Segment I,J have higher unemployment rates than the counties in which they are located.

The percentage of the population below the poverty line for the Census tracts within Study Area 3B ranges from 0.4 percent to 28.9 percent. The percentages of the population below the poverty line for Orange County, Riverside County, and San Bernardino County are 10.9 percent, 13.7 percent, and 16.0 percent, respectively. The data show that six tracts in Segment I,J have a higher percentage of population below the poverty line than the counties in which they are located.

[33] The Orange County, Riverside County, and San Bernardino County average percentages of population below poverty/low income are 10.9 percent, 13.7 percent, and 16.0 percent, respectively.
[34] The Orange County, Riverside County, and San Bernardino County percentages of limited English-speaking households are 8.4 percent, 5.2 percent, and 6.4 percent, respectively.
[35] The Orange County, Riverside County, and San Bernardino County total minority population percentages are 54.9 percent, 64.7 percent, and 71.5 percent, respectively.

Table 27: Disadvantaged Community Designation – Study Area 3B[36]

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6059021815	11,591	I,J	N/A	N/A
6059021822	9,543	I,J	N/A	N/A
6059021825	2,940	I,J	N/A	N/A
6065040607	12,853	I,J	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6071000109	6,953	I,J	N/A	N/A
6071000113	12,332	I,J	N/A	N/A
6071000116	12,989	I,J	N/A	N/A
6071000504	4,530	I,J	N/A	N/A
6071001901	4,664	I,J	N/A	N/A
6071001903	13,753	I,J	N/A	N/A
6071001905	6,981	I,J	N/A	DAC
6071001906	10,032	I,J	CalEnviroScreen 4.0 Top 25 Percent	N/A
6071002204	6,624	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071002206	7,293	I,J	CalEnviroScreen 4.0 Top 25 Percent	N/A
6071002306	4,079	I,J	N/A	DAC
6071002601	9,594	I,J	N/A	N/A
6071002704	11,527	I,J	CalEnviroScreen 4.0 Top 25 Percent	N/A
6071002705	5,273	I,J	N/A	N/A
6071002706	14,133	I,J	N/A	N/A
6071003503	5,777	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071003505	7,473	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071003506	5,535	I,J	CalEnviroScreen 4.0 Top 25 Percent	N/A
6071003507	4,367	I,J	CalEnviroScreen 4.0 Top 25 Percent	N/A
6071003509	4,343	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071003510	5,368	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071003603	3,938	I,J	N/A	N/A
6071003605	4,468	I,J	N/A	N/A
6071003606	4,309	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC

[36] Each row that is shaded is considered a DAC.

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6071003607	5,532	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071003609	5,363	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071004001	4,366	I,J	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071004004	5,599	I,J	CalEnviroScreen 4.0 Top 25 Percent	N/A
6071012200	18,685	I,J	N/A	N/A
6071012700	3,920	I,J	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

Table 28: Low-Income/Poverty Conditions – Study Area 3B

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Orange County	N/A	$90,234	4.6	10.9
6059021815	I,J	$129,294	6.0	4.0
6059021822	I,J	$144,817	3.3	3.6
6059021825	I,J	$123,194	2.3	7.7
Riverside County	N/A	$67,005	7.5	13.7
6065040607	I,J	$103,421	7.7	11.6
San Bernardino County	N/A	$63,362	7.7	16.0
6071000109	I,J	$112,931	5.0	7.3
6071000113	I,J	$80,386	6.3	7.6
6071000116	I,J	$110,927	4.9	4.7
6071000504	I,J	$88,056	3.1	3.9
6071001901	I,J	$106,168	4.8	1.7
6071001903	I,J	$96,783	4.4	10.1
6071001905	I,J	$100,919	5.4	10.9
6071001906	I,J	$83,475	4.7	12.3
6071002204	I,J	$64,676	9.9	10.9
6071002206	I,J	$79,375	7.1	0.4
6071002306	I,J	$91,813	13.3	7.5
6071002601	I,J	$69,428	5.5	11.2
6071002704	I,J	$104,848	8.4	5
6071002705	I,J	$79,063	6.5	9.5
6071002706	I,J	$109,010	9.3	4.1
6071003503	I,J	$73,967	12	12.4
6071003505	I,J	$53,843	17.7	26.2
6071003506	I,J	$72,833	4.0	15.6
6071003507	I,J	$76,886	6.2	6.6
6071003509	I,J	$41,438	10.7	16.4
6071003510	I,J	$45,954	11.2	28.9
6071003603	I,J	$71,326	7.8	6.2

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6071003605	I,J	$87,600	10.8	7.8
6071003606	I,J	$50,239	3.0	15.9
6071003607	I,J	$55,089	9.9	16.4
6071003609	I,J	$51,988	10.1	27.2
6071004001	I,J	$56,576	8.9	20.3
6071004004	I,J	$70,964	3.6	13.1
6071012200	I,J	$94,915	3.0	15.3
6071012700	I,J	$84,821	5.7	5.1

Sources: U.S. Census Bureau 2019b, U.S. Census Bureau 2019d, U.S. Census Bureau 2019e

3.5.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Orange County, Riverside County, and San Bernardino County that would be crossed by the segments in Study Area 3B are detailed in Table 29: Public Services – Study Area 3B.

Table 29: Public Services – Study Area 3B

County/Census Tract	Segment	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Orange County	I,J	647	1	24	14	6,098
Riverside County	I,J	544	4	19	11	3,480
San Bernardino County	I,J	595	3	13	9	4,083

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.5.0.5 Minority/Ethnicity

The minority/ethnicity statistics of the Orange County, Riverside County, and San Bernardino County Census tracts that would be crossed by the segments in Study 3B are detailed in Table 30: Minority/Ethnicity Percentages – Study Area 3B. The minority population percentage for Census tracts within Study Area 3B ranges from 41.0 percent to 94.9 percent. The total minority percentages for Orange County, Riverside County, and San Bernardino County are 59.4 percent, 64.7 percent, and 71.5 percent, respectively. The data show that 28 tracts in Segment I,J have higher percentage rates than the averages for the counties in which they are located.

Table 30: Minority/Ethnicity Percentages – Study Area 3B

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
Orange County	N/A	61.0	1.80	0.50	20.5	0.30	11.9	34.1	59.4
6059021815	I,J	51.8	2.3	0.4	39.5	0	1.7	15.3	61.1
6059021822	I,J	55.7	1.4	0	36.2	0.1	2.2	10.5	50.3
6059021825	I,J	69.3	1.7	0	23.7	0	1.5	13.7	41.0
Riverside County	N/A	59.9	6.5	0.8	6.5	0.3	21.5	48.9	64.7
6065040607	I,J	45.5	7.3	0	18.8	0.3	20.8	50.2	78.2
San Bernardino County	N/A	61.20	8.3	0.8	7.2	0.3	17.2	53.3	71.5
6071000109	I,J	66	1.3	3.2	15.6	0	5.4	33.9	51.4
6071000113	I,J	43.9	2	0.3	24.8	0	24.3	47.3	77.3
6071000116	I,J	44.9	6.8	0.1	40.2	0.3	4	19.3	68.7
6071000504	I,J	70.4	1.2	1.8	9.6	0	14.8	56.6	68.8
6071001901	I,J	66.3	4.9	0.2	14.6	0	6.5	50.9	71.7
6071001903	I,J	38.3	5.2	0.3	35.4	1.7	11.1	29	76
6071001905	I,J	58.5	3.1	2.4	17.2	0	13	55.7	79.2
6071001906	I,J	43.8	9.3	0	18.1	0	17.3	50.6	80.5
6071002204	I,J	29	8.5	0.2	6.8	0	53.4	75.6	91.1
6071002206	I,J	49.7	6.3	0.1	6.4	0	30.8	64.7	80.7
6071002306	I,J	50	10.5	0	6.4	0	29.9	73.3	90.7

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6071002601	I,J	36.5	8.7	1	9.3	0	38.5	66.6	88.1
6071002704	I,J	49.9	16.2	0.6	13	0	14.5	46.2	76.9
6071002705	I,J	62.1	13.4	0.8	2.4	0	17	68.7	86.6
6071002706	I,J	61.6	17.7	0.4	4.7	0.3	10.7	53.2	76
6071003503	I,J	53.7	11.3	0	5.8	0	25.7	72.6	90.6
6071003505	I,J	71.4	12.3	0.2	2.6	0	9.2	77.7	94
6071003506	I,J	65.2	15.1	0.6	3	0	14.9	70	87.9
6071003507	I,J	71.3	10.4	0.7	4.1	0	11.4	79.2	94.5
6071003509	I,J	74.5	8.6	2.2	0.6	0	13	78.2	88.7
6071003510	I,J	50.7	17.8	1	1	0	26.3	74.9	94.9
6071003603	I,J	57.7	9	1.1	0.6	0	23.8	74.8	85.9
6071003605	I,J	65.3	8.3	0.6	1.5	0	22.7	71.9	82.9
6071003606	I,J	66.7	0	0	2.8	0	27.7	84.2	87
6071003607	I,J	63.7	12.2	0	3.1	0	14	75.4	91.3
6071003609	I,J	77.4	3.7	0	2.2	0	13.4	87.2	94.9
6071004001	I,J	61	4.2	0.9	0.5	0	29.9	80.9	87.4
6071004004	I,J	45.8	4.7	1.3	2.2	0	41	75	81.2
6071012200	I,J	33.5	13.2	0.7	17.9	0.4	24.1	36.5	74.4
6071012700	I,J	63	5.5	0	6.7	0	13.8	60.6	74.7

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic White.
Source: U.S. Census Bureau 2019a

3.6 STUDY AREA 3C

3.6.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes within Study Area 3C. The corresponding jurisdictions are detailed in Table 31: Jurisdictions Crossed by Study Area 3C.

Table 31: Jurisdictions Crossed by Study Area 3C

Segment	Jurisdiction	Miles Crossed through Jurisdiction
G	City of Adelanto	3.1
	City of Palmdale	9.2
	Unincorporated Los Angeles County	18.3
	Unincorporated San Bernardino County	8.9
I	City of Adelanto	2.3
	City of Rialto	<0.1
	City of San Bernardino	1.8
	City of Victorville	1.8
	Unincorporated San Bernardino County	27.5

Existing conditions for Study Area 3C were determined using U.S. Census data, CalEnviroScreen data, and CEJST data.

3.6.0.1 Census Tract Statistics

Table 32: Census Tract Statistics by Segment Crossed – Study Area 3C provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 3C. The table uses the data for Los Angeles and San Bernardino counties as a baseline against which to compare the Census tracts. The table lists the percentage of Census tracts that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of Census tracts that would be crossed by each segment that have a higher percentage of population below poverty, linguistically isolated households, or minority population percentage when compared to the averages of the counties in which they are located.

3.6.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 3C is detailed in Table 33: Disadvantaged Community Designation – Study Area 3C. As indicated in the table, a total of 28 Census tracts would be crossed by pipeline segments within Study Area 3C. Of these 28 tracts, 15 are identified as DACs. Of these 15 tracts, Segment G would cross 13 and Segment I would cross three.

Table 32: Census Tract Statistics by Segment Crossed – Study Area 3C

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[37]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[38]	Percentage of Census Tracts Above the County Total Minority Population Percentage[39]
G	68.4	57.9	36.8	68.4
I	30.0	10.0	10.0	50.0

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022, U.S. Census Bureau 2019a, U.S. Census Bureau 2019b, U.S. Census Bureau 2019c

3.6.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the county and Census tracts within Study Area 3C, (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are detailed in Table 34: Low-Income/Poverty Conditions – Study Area 3C. The median household income for Census tracts within the study area ranges from $33,750 to $109,010. The median household income for Los Angeles County and San Bernardino County are $68,044 and $63,362, respectively. For Segments G and I, the median household incomes range from $33,750 to $80,750 and from $36,818 to $109,010, respectively. The data show that 15 tracts in Segment G and three tracts in Segment I are below the median household income for the counties in which they are located.

The unemployment rate for Census tracts within Study Area 3C ranges from 3.4 percent to 13.9 percent. The median unemployment rates for Los Angeles County and San Bernardino County are 6.1 percent and 7.7 percent, respectively. For Segments G and I, the unemployment rates range from 3.4 percent to 13.9 percent and from 3.6 percent to 10.7 percent, respectively. The data shows that 13 tracts in Segment G and six tracts in Segment I have higher unemployment rates than the counties in which they are located.

[37] The Los Angeles County and San Bernardino County average percentages of population below poverty/low income are 14.9 percent and 16.0 percent, respectively.
[38] The Los Angeles County and San Bernardino County percentages of limited English-speaking households are 12.6 percent and 6.4 percent, respectively.
[39] The Los Angeles County and San Bernardino County total minority population percentages are 75.5 percent and 71.5 percent, respectively.

Table 33: Disadvantaged Community Designation – Study Area 3C[40]

Census Tract	Population	Segment(s) Crossed	CalEnviroScreen Designation	CEJST Designation
6037900102	710	G	N/A	DAC
6037900104	5,822	G	N/A	DAC
6037910001	6,345	G	N/A	DAC
6037910002	7,723	G	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037910205	1,225	G	N/A	N/A
6037910401	6,359	G	N/A	N/A
6037910404	4,284	G	N/A	N/A
6037910505	3,217	G	N/A	N/A
6037910603	6,928	G	N/A	DAC
6037910606	3,121	G	N/A	DAC
6037910705	11,613	G	N/A	N/A
6037910706	6,301	G	N/A	DAC
6037910707	5,420	G	N/A	N/A
6037910711	7,655	G	N/A	DAC
6037910712	2,904	G	N/A	DAC
6037910714	3,870	G	N/A	DAC
6037910715	6,653	G	N/A	DAC
6037911001	3,926	G	N/A	DAC
6071002704	11,527	I	CalEnviroScreen 4.0 Top 25 Percent	N/A
6071002705	5,273	I	N/A	N/A
6071002706	14,133	I	N/A	N/A
6071004503	3,718	I	N/A	N/A
6071009117	8,697	G, I	CalEnviroScreen 4.0 Top 25 Percent	DAC
6071009118	21,531	I	N/A	N/A
6071009119	6,128	I	N/A	N/A
6071009202	1,858	I	N/A	N/A
6071010017	16,448	I	N/A	N/A
6071010802	3,820	I	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

[40] Each row that is shaded is considered a DAC.

Table 34: Low-Income/Poverty Conditions – Study Area 3C

County/Census Tract	Segment(s)	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Los Angeles County	N/A	$68,044	6.1	14.9
6037900102	G	$33,750	7	33.3
6037900104	G	$48,444	11	13.8
6037910001	G	$46,576	8.5	24.1
6037910002	G	$46,875	8.4	19.9
6037910205	G	$65,431	5	15.7
6037910401	G	$80,750	6.7	4.6
6037910404	G	$58,952	10	15.5
6037910505	G	$68,864	5.1	12.2
6037910603	G	$57,824	8.1	15
6037910606	G	$53,922	6.2	24.2
6037910705	G	$76,219	3.4	9.7
6037910706	G	$60,094	8.8	12.9
6037910707	G	$53,646	6.1	18.7
6037910711	G	$62,910	10.9	12.9
6037910712	G	$70,884	12.3	8
6037910714	G	$56,652	5.8	16.6
6037910715	G	$55,118	13.9	10.7
6037911001	G	$53,830	10.5	19.4
San Bernardino County	N/A	$63,362	7.7	16.0
6071002704	I	$104,848	8.4	5
6071002705	I	$79,063	6.5	9.5
6071002706	I	$109,010	9.3	4.1
6071004503	I	$103,634	3.9	6.9
6071009117	G, I	$36,818	10.7	27.7
6071009118	I	$83,573	3.6	5.3
6071009119	I	$75,804	4.6	11.4
6071009202	I	$46,974	8	14.3
6071010017	I	$82,790	6.8	7
6071010802	I	$55,684	3.9	15.1

Sources: U.S. Census Bureau 2019b, U.S. Census Bureau 2019d, U.S. Census Bureau 2019e

The percentage of the population below poverty line for Census tracts within Study Area 3C ranges from 4.1 percent to 33.3 percent. The percentages of the population below the poverty line for Los Angeles County and San Bernardino County are 14.9 percent and 16 percent, respectively. Within Segment G and Segment I, the percentages of population below the poverty line range from 4.6 percent to 33.3 percent and from 4.1 percent to 27.7 percent, respectively. The data show that 11 tracts in Segment G and one tract in Segment I are above the median percentage of population below the poverty line for the counties in which they are located.

3.6.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Los Angeles County and San Bernardino County that would be crossed by the segments in Study Area 3C are detailed in Table 35: Public Services – Study Area 3C.

Table 35: Public Services – Study Area 3C

County	Segment(s)	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Los Angeles County	G	1,950	24	54	34	21,395
San Bernardino County	G, I	595	3	13	9	4,083

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.6.0.5 Minority/Ethnicity

The minority/ethnicity statistics of the Los Angeles County and San Bernardino County Census tracts that would be crossed by the segments in Study 3C are detailed in Table 36: Minority/Ethnicity Percentages – Study Area 3C. The minority population percentage for Census tracts within Study Area 3C ranges from 25.4 percent to 93.5 percent. The total minority percentages for Los Angeles County and San Bernardino County are 75.5 percent and 71.5 percent, respectively. For Segments G and I, the minority population percentages range from 51.3 percent to 93.5 percent and from 25.4 percent to 86.6 percent, respectively. The data show that 14 tracts in Segment G and four tracts in Segment I have higher percentage rates than the averages of the counties in which they are located.

Table 36: Minority/Ethnicity Percentages – Study Area 3C

County/ Census Tract	Segment(s)	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
Los Angeles County	N/A	29.4	7.6	1.4	15.0	0.3	25.8	49.0	75.5
6037900102	G	79.3	1.5	1.7	1.7	0	8.7	44.5	54.2
6037900104	G	60.4	7.3	0	0.9	0	27.7	61.7	70.8
6037910001	G	55.8	9.9	0.6	2.7	0	24.8	67.4	82.4
6037910002	G	60.2	1.6	2	0	0	31.7	64.7	70.1
6037910205	G	54.7	1.9	1.6	8.3	1.7	23.4	51.8	68.8
6037910401	G	50.7	6.1	1	11.1	0	20.7	43.5	65.7
6037910404	G	35.2	13	0	5.2	0	41.9	69.9	86.9
6037910505	G	49.7	2.4	6.1	1.8	0	34.5	74.4	85.9
6037910603	G	52.5	12	3.4	1.6	0	27.4	69	83.5
6037910606	G	32.1	9	0	6.3	0.2	47.4	72.9	89.5
6037910705	G	47.3	13.6	0	3.4	0	33.4	70.2	87.7
6037910706	G	49.9	14.2	3	4.2	0.7	24.8	70.2	89.7
6037910707	G	38.4	17.5	5.9	2.1	0	29.5	61.1	84.3
6037910711	G	49.9	9.8	0.2	5.9	0	26.4	67	82.7
6037910712	G	43.1	15.4	0.7	1.9	0	34.6	67.8	86.9
6037910714	G	39.7	13.7	0.2	1.4	0	41.7	77.4	93.5
6037910715	G	31.1	19.1	4.5	3	0	38.7	65	87.9

County/ Census Tract	Segment(s)	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037911001	G	59.6	4.5	0	1.3	0	27.5	42.8	51.3
San Bernardino County	N/A	61.20	8.3	0.8	7.2	0.3	17.2	53.3	71.5
6071002704	I	49.9	16.2	0.6	13	0	14.5	46.2	76.9
6071002705	I	62.1	13.4	0.8	2.4	0	17	68.7	86.6
6071002706	I	61.6	17.7	0.4	4.7	0.3	10.7	53.2	76
6071004503	I	75.2	5.1	0	6.3	0	10.8	45.4	57.9
6071009117	G, I	72.6	16.6	0.1	0.4	0.6	7.4	60	77.6
6071009118	I	66	16.5	1	3.9	0	7	51.7	74.1
6071009119	I	81.3	2.2	4	0.8	0.4	7.7	40.4	46.2
6071009202	I	80.4	0.3	0.5	15.6	0	1.2	16.8	33.7
6071010017	I	75	4.4	4.6	4.2	0	6.3	52.1	67.6
6071010802	I	93.5	4.2	0	0	0	2.1	21.7	25.4

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic White.
Source: U.S. Census Bureau 2019a

3.7 STUDY AREA 3D

3.7.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes within Study Area 3D. The corresponding jurisdictions are detailed in Table 37: Jurisdictions Crossed by Study Area 3D.

Table 37: Jurisdictions Crossed by Study Area 3D

Segment	Jurisdiction	Miles Crossed through Jurisdiction
E	City of Lancaster	4.3
	Unincorporated Kern County	19.3
	Unincorporated Los Angeles County	7.0
L	Unincorporated Kern County	12.8
M	City of Tehachapi	2.2
	Unincorporated Kern County	46.4

Existing conditions for Study Area 3D were determined using U.S. Census data, CalEnviroScreen data, and CEJST data.

3.7.0.1 Census Tract Statistics

Table 38: Census Tract Statistics by Segment Crossed – Study Area 3D provides a summary of the socioeconomic status of the individual segments of Study Area 3D. The table uses Kern and Los Angeles counties as a baseline against which to compare the Census tracts. The table lists the percentage of Census tracts within each segment that have a CalEnviroScreen or CEJST DAC. The table also lists the percentage of Census tracts that would be crossed by the study area for each segment that has a higher percentage of population below poverty, linguistically isolated households, or minority population percentage when compared to the averages of the county in which it is located.

3.7.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 3D is detailed in Table 39: Disadvantaged Community Designation – Study Area 3D. As indicated in the table, a total of 20 Census tracts would be crossed by pipeline segments within Study Area 3D. Of these 20 tracts, 13 are identified as DACs. Of these 13 tracts, Segment E would cross nine, Segment L would cross two, and Segment M would cross five.

Table 38: Census Tract Statistics by Segment Crossed – Study Area 3D

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[41]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[42]	Percentage of Census Tracts Above the County Total Minority Population Percentage[43]
E	66.7	66.7	13.3	53.3
L	100	50	50.0	50
M	71.4	28.6	28.6	57.1

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022, U.S. Census Bureau 2019a, U.S. Census Bureau 2019b, U.S. Census Bureau 2019c

3.7.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the county and Census tracts within Study Area 3D (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are detailed in Table 40: Low-Income/Poverty Conditions – Study Area 3D. The median household income for Census tracts within Study Area 3D ranges from $24,510 to $94,506. The median household incomes for Los Angeles County and Kern County are $68,044 and $53,530, respectively. For Segment E, the median household income ranges from $24,510 to $94,506. For Segments L and M, the median household incomes range from $50,357 to $54,837 and from $24,517 to $85,268, respectively. The data show that 12 tracts in Segment E, three tracts in Segment M, and one tract in Segment L are below the median household income of the counties in which they are located.

The unemployment rate for Census tracts within Study Area 3D ranges from 2.9 percent to 16.2 percent. The median unemployment rates for Los Angeles County and Kern County are 6.1 percent and 9.8 percent, respectively. The data show that nine tracts in Segment E and two tracts in Segment M have higher unemployment rates than the counties in which they are located.

3.7.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Los Angeles County and Kern County that would be crossed by the segments in Study Area 3D are detailed in Table 41: Public Services – Study Area 3D.

[41] The Los Angeles County and Kern County average percentages of population below poverty/low income are 21.0 percent and 14.9 percent, respectively.
[42] The Los Angeles County and Kern County percentages of limited English-speaking households are 12.6 percent and 7.6 percent, respectively.
[43] The Los Angeles County and Kern County total minority population percentages are 75.5 percent and 65.8 percent, respectively.

Table 39: Disadvantaged Community Designation – Study Area 3D[44]

Census Tract	Population	Segment(s) Crossed	CalEnviroScreen Designation	CEJST Designation
6029005506	5,464	E	N/A[45]	N/A
6029005801	6,604	E	N/A	N/A
6029005802	9,479	E	N/A	DAC
6029005900	3,394	E and M	CalEnviroScreen 4.0 Top 25 Percent	DAC
6029006002	4,228	M	N/A	N/A
6029006006	3,878	M	N/A	N/A
6029006007	6,245	L and M	N/A	DAC
6029006100	8,240	M	N/A	DAC
6029006202	8,427	L and M	CalEnviroScreen 4.0 Top 25 Percent	DAC
6029006500	4,501	E and M	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037900300	5,613	E	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037900501	7,225	E	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037900504	7,621	E	N/A	N/A
6037900602	5,542	E	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037900606	3,532	E	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037900607	3,651	E	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037900701	5,012	E	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037900704	2,910	E	N/A	DAC
6037900900	4,018	E	N/A	N/A
6037980003	0	E	N/A	N/A

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

[44] Each row that is shaded is considered a DAC.
[45] N/A indicates that the Census tract identified is not in a DAC in the designated screening tool.

Table 40: Low-Income/Poverty Conditions – Study Area 3D

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Kern County	N/A	$53,350	9.8	21.0
6029005506	E	$69,392	10.9	7.9
6029005801	E	$94,506	8.5	9.6
6029005802	E	$43,598	12.2	28.7
6029005900	E and M	$24,510	16.2	37.2
6029006002	M	N/A	N/A	N/A
6029006006	M	$85,268	2.9	4.5
6029006007	L and M	$54,837	8.8	16.0
6029006100	M	$55,085	8.3	14.2
6029006202	L and M	$50,357	7.0	21.9
6029006500	E and M	$34,000	16.2	20.6
Los Angeles County	N/A	$68,044	6.1	14.9
6037900300	E	$56,757	5.9	21.0
6037900501	E	$55,166	7.2	22.5
6037900504	E	$58,949	3.0	16.3
6037900602	E	$36,000	8.5	24.2
6037900606	E	$32,025	8.8	36.7
6037900607	E	$39,519	11.8	29.6
6037900701	E	$39,341	16.2	35.1
6037900704	E	$42,330	5.2	19.5
6037900900	E	$54,066	3.7	12.1
6037980003	E	N/A	N/A	N/A

Sources: U.S. Census Bureau 2019b, U.S. Census Bureau 2019d, U.S. Census Bureau 2019e

Table 41: Public Services – Study Area 3D

County/Census Tract	Segment	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Kern County	E, L, M	280	15	9	5	1311
Los Angeles County	E	1,950	24	54	34	21,395

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.7.0.5 Minority/Ethnicity

The minority/ethnicity statistics of the Los Angeles County and Kern County Census tracts that would be crossed by the segments in Study 3D are detailed in Table 42: Minority/Ethnicity Percentages – Study Area 3D. The minority population percentage for Census tracts within the Study Area ranges from 17.9 percent to 95.5 percent. The total minority percentages for Los Angeles County and Kern County are 75.5 percent and 65.8 percent, respectively. For Segments E, L, and M, the minority population percentages range from 35.8 percent to 80.1 percent, from 17.9 percent to 95.5 percent, and from 23.9 to 95.5 percent, respectively. The data show that eight tracts in Segment E, one tract in Segment L, and three tracts in Segment M have higher minority percentage rates than the counties in which they are located.

Table 42: Minority/Ethnicity Percentages – Study Area 3D

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
Kern County	N/A	74.4	5.5	1.0	4.7	0.2	10.7	53.3	65.8
6029005506	E	74.4	4.5	1.1	1.1	0	10.3	34.6	47.7
6029005801	E	70.6	10	0.7	2.2	0.3	9.1	29.8	46.5
6029005802	E	65.9	9.5	1.6	1.0	0.0	17.8	54.6	68.5
6029005900	E, M,	49.6	26.1	3.8	0.5	2.3	15.8	40.5	73.2
6029006002	M	71.7	15.9	1.0	2.2	0.6	3.4	48.8	71.0
6029006006	M	90.8	0.8	0.0	1.8	0.0	4.1	14.0	17.9
6029006007	L, M	92.8	0.3	2.0	0.5	0.0	0.8	17.7	23.9
6029006100	M	82.1	7.3	0.8	2.4	0.0	2.1	28.7	42.5
6029006202	L, M	80.4	1.3	0.2	1.8	0.0	16.3	92.9	95.5
6029006500	E, M	57.6	15.3	1.5	4.7	0.4	14.2	43.9	67.7
Los Angeles County	N/A	29.4	7.6	1.4	15.0	0.3	25.8	49.0	75.5
6037900300	E	70.9	11.4	2.2	9.0	0.1	3.8	45.4	70.0
6037900501	E	59.2	24.4	0.5	4.4	0.0	7.6	47.9	80.1
6037900504	E	62.9	20.4	0.0	6.1	0.0	7.5	51.4	78.3
6037900602	E	73.0	11.5	0.1	1.2	0.1	11.1	68.1	83.0
6037900606	E	47.5	43.1	1.3	1.6	0.0	4.9	32.4	78.1

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037900607	E	68.9	14.7	0.4	3.5	0.0	9.2	47.2	66.9
6037900701	E	48.4	30.1	0.5	2.7	0.3	14.3	36.3	70.6
6037900704	E	39.2	44.9	0.5	10.4	1.3	1.6	18.2	76.2
6037900900	E	79	9.8	0.4	1.6	0.2	6.1	20.9	35.8
6037980003	E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic White.
Source: U.S. Census Bureau 2019a

3.8 STUDY AREA 3E

3.8.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes within Study Area 3E. The corresponding jurisdictions are detailed in Table 43: Jurisdictions Crossed by Study Area 3E.

Table 43: Jurisdictions Crossed by Study Area 3E

Segment	Jurisdiction	Miles Crossed through Jurisdiction
K	City of Santa Clarita	5.8
	Unincorporated Kern County	12.3
	Unincorporated Los Angeles County	30.6
	Unincorporated Ventura County	6.7

Existing conditions of Study Area 3E were determined using U.S. Census data, CalEnviroScreen data, and CEJST data.

3.8.0.1 Census Tract Statistics

Table 44: Census Tract Statistics by Segment Crossed – Study Area 3E provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 3E. The table uses the data for Kern County, Los Angeles County, and Ventura County as a baseline against which to compare the Census tracts. The table lists the percentage of Census tracts that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of Census tracts that would be crossed by each segment that have a higher percentage of population below poverty, linguistically isolated households, or minority population percentage when compared to the averages of the county in which it is located.[46]

3.8.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 3E is detailed in Table 45: Disadvantaged Community Designation – Study Area 3E. As indicated in the table, a total of 23 Census tracts would be crossed by pipeline segments within Study Area 3E. Of these 23 tracts, six are identified as DACs.

[46] One of the 23 Census tracts that would be crossed by pipeline segments within Study Area 3E did not have sufficient data to determine population below poverty, linguistic isolation, or minority population. These communities were not included in the calculation of the percentage.

Table 44: Census Tract Statistics by Segment Crossed – Study Area 3E

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[47]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[48]	Percentage of Census Tracts Above the County Total Minority Population Percentage[49]
K	26.1	18.2	9.1	13.0

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022, U.S. Census Bureau 2019a, U.S. Census Bureau 2019b, U.S. Census Bureau 2019c

3.8.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the county and Census tracts within Study Area 3E (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are detailed in Table 46: Low-Income/Poverty Conditions – Study Area 3E. The median household income for Census tracts within Study Area 3E ranges from $35,510 to $180,500. The median household incomes for Kern County, Los Angeles County, and Ventura County are $53,350, $68,044, and $88,131, respectively. The data show that five tracts in Segment K are below the median household income for the counties in which they are located.

The unemployment rate for Census tracts within Study Area 3E ranges from 1.9 percent to 21.8 percent. The median unemployment rates for Kern County, Los Angeles County, and Ventura County are 9.8 percent, 6.1 percent, and 5.1 percent, respectively. The data shows that eight tracts in Segment K have higher unemployment rates than the county in which they are located.

The percentage of population below poverty line for Census tracts within Study Area 3E ranges from 1.7 percent to 24.9 percent. The percentages of the population below the poverty line for Kern County, Los Angeles County, and Ventura County are 21 percent, 14.9 percent, and 8.9 percent, respectively. The data show that four tracts in Segment K are above the median percentage of population below the poverty line for the counties in which they are located.

[47] The Kern County, Los Angeles County, and Ventura County average percentages of population below poverty/low income are 21.0 percent, 14.9 percent, and 8.9 percent, respectively.
[48] The Kern County, Los Angeles County, and Ventura County percentages of limited English-speaking households are 9.5 percent, 12.6 percent, and 6.0 percent, respectively.
[49] The Kern County, Los Angeles County, and Ventura County total minority population percentages are 70.4 percent, 75.5 percent, and 54.6 percent, respectively.

Table 45: Disadvantaged Community Designation – Study Area 3E[50]

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6029003305	3,487	K	N/A	DAC
6029003306	4,199	K	N/A	DAC
6029006007	6,245	K	N/A	DAC
6037901209	1,634	K	N/A	DAC
6037920102	5,466	K	N/A	N/A
6037920104	2,933	K	N/A	N/A
6037920106	3,381	K	N/A	N/A
6037920107	6,295	K	N/A	N/A
6037920114	6,518	K	N/A	N/A
6037920115	3,957	K	N/A	N/A
6037920116	5,481	K	N/A	N/A
6037920118	6,035	K	N/A	N/A
6037920200	5,393	K	N/A	N/A
6037920312	5,826	K	N/A	N/A
6037920314	2,920	K	N/A	N/A
6037920328	2,036	K	N/A	N/A
6037920329	7,152	K	N/A	N/A
6037920331	3,482	K	N/A	N/A
6037920332	2,438	K	N/A	N/A
6037920336	6,881	K	N/A	DAC
6037920337	6,943	K	N/A	DAC
6037920339	7,420	K	N/A	N/A
6111000100	620	K	N/A	N/A

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

[50] Each row that is shaded is considered a DAC.

Table 46: Low-Income/Poverty Conditions – Study Area 3E

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Kern County	N/A	$53,350	9.8	21.0
6029003305	K	$35,510	10.1	24.9
6029003306	K	$54,314	13.4	12
6029006007	K	$54,837	8.8	16
Los Angeles County	N/A	$68,044	6.1	14.9
6037901209	K	$63,365	2.9	9.4
6037920102	K	$90,214	6.1	5.3
6037920104	K	$127,625	6.5	2.3
6037920106	K	$89,087	7.4	4.1
6037920107	K	$180,500	4.2	3.4
6037920114	K	$120,536	4.3	6.8
6037920115	K	$117,955	1.9	1.7
6037920116	K	$113,720	4.8	6.5
6037920118	K	$126,425	5.3	2.1
6037920200	K	N/A	N/A	N/A
6037920312	K	$79,241	4.5	16.6
6037920314	K	$100,956	4.6	5
6037920328	K	$111,042	3.9	9.9
6037920329	K	$91,130	4.5	7.8
6037920331	K	$102,225	2.4	3.8
6037920332	K	$91,667	6.8	4.4
6037920336	K	$56,912	6.4	21.6
6037920337	K	$56,297	6.3	20.4
6037920339	K	$143,047	3.3	5.1
Ventura County	N/A	$88,131	5.1	8.90
6111000100	K	$59,028	21.8	5.5

Sources: U.S. Census Bureau 2019b, U.S. Census Bureau 2019d, U.S. Census Bureau 2019e

3.8.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Kern County, Los Angeles County, and Ventura County that would be crossed by the segments in Study Area 3E are detailed in Table 47: Public Services – Study Area 3E.

Table 47: Public Services – Study Area 3E

County/Census Tract	Segment	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Kern County	K	280	15	9	5	1,311
Los Angeles County	K	1,950	24	54	34	21,395
Ventura County	K	228	7	5	5	1,549

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.8.0.5 Minority/Ethnicity

The minority/ethnicity statistics of the Kern County, Los Angeles County, and Ventura County Census tracts that would be crossed by Segment K in Study 3E are detailed in Table 48: Minority/Ethnicity Percentages – Study Area 3E. The minority population percentage for Census tracts within Study Area 3E ranges from 11.6 percent to 86.6 percent. The total minority percentages for Kern County, Los Angeles County, and Ventura County are 65.8 percent, 75.5 percent, and 54.6 percent, respectively. The data show that three tracts in Segment K have higher percentage rates than the counties in which they are located.

Table 48: Minority/Ethnicity Percentages – Study Area 3E

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
Kern County	N/A	74.4	5.5	1.0	4.7	0.2	10.7	53.3	65.8
6029003305	K	92.2	0	0	1.5	0	1.6	20.9	26.8
6029003306	K	82.4	0	7.8	4.7	0	1.9	23.6	33
6029006007	K	92.8	0.3	2	0.5	0	0.8	17.7	23.9
Los Angeles County	N/A	29.4	7.6	1.4	15.0	0.3	25.8	49.0	75.5
6037901209	K	70.6	3.4	1.4	2.8	0	18.2	33	43.6
6037920102	K	76.1	2.4	0.4	4.8	0.1	10.9	36.5	50.8
6037920104	K	78.4	1.1	4.2	3.4	0.4	6.1	25.6	36.9
6037920106	K	72.3	2.1	1.1	3.6	0.2	15.2	62	67.6
6037920107	K	62.1	3.9	0.9	25.9	0	3.4	17.6	50.4
6037920114	K	71.4	2.8	0	16.8	0	4.2	19.5	42.3
6037920115	K	63.9	2.7	1.1	19.6	0	6.4	15.8	43.4
6037920116	K	65.5	8	1.4	13.1	0.7	7	22	45.7
6037920118	K	71	3.5	0.4	14.1	0	5.4	26.1	45.7
6037920200	K	52	18.1	4.7	1.5	0.6	12.2	59.4	86.6
6037920312	K	79.1	5.2	2.1	5.9	0.6	3	31.6	46.3
6037920314	K	75.1	1.7	1.1	6.2	0	9.8	28	38.8
6037920328	K	69	2.1	0.6	20.3	0.3	1.1	11.9	40.9

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037920329	K	77.3	3.3	0	7.9	0	4.9	18.1	33.9
6037920331	K	75.9	3.8	0.2	4.8	0	2.7	28.1	42.4
6037920332	K	83.9	0.9	0.5	4.5	0.3	5.2	25.1	35.1
6037920336	K	66.3	0.4	0	4	0	24.2	76.6	84.7
6037920337	K	66.5	6	0.7	9.9	0.2	9.4	68	85.9
6037920339	K	56.7	2.2	1	28.5	0	2	11.9	48.5
Ventura County	N/A	80.1	1.8	0.8	7.3	0.2	5.2	42.7	54.6
6111000100	K	93.2	0	0	1.8	0	0	4.8	11.6

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic White.
Source: U.S. Census Bureau 2019a.

3.9 STUDY AREA 3F

3.9.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes within Study Area 3F. The corresponding jurisdictions are detailed in Table 49: Jurisdictions Crossed by Study Area 3F.

Table 49: Jurisdictions Crossed by Study Area 3F

Segment	Jurisdiction	Miles Crossed through Jurisdiction
Y	City of Bell	0.2
	City of Burbank	3.3
	City of Carson	4.0
	City of Compton	3.9
	City of Cudahy	0.8
	City of Glendale	4.8
	City of Huntington Park	1.9
	City of Los Angeles	21.1
	City of Lynwood	2.1
	City of Maywood	<0.1
	City of San Fernando	1.3
	City of South Gate	1.6
	City of Vernon	1.6
	Unincorporated Los Angeles County	1.9

Existing conditions for Study Area 3F were determined using U.S. Census data, CalEnviroScreen data, and Climate and CEJST data.

3.9.0.1 Census Tract Statistics

Table 50: Census Tract Statistics by Segment Crossed – Study Area 3F provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 3F. The table uses the data for Los Angeles County as a baseline against which to compare the Census tracts. The table lists the percentage of Census tracts that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of Census tracts crossed by each segment that have a higher percentage of population below poverty, linguistically isolated

households, or minority population percentage when compared to the averages of the county in which it is located.[51]

Table 50: Census Tract Statistics by Segment Crossed – Study Area 3F

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[52]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[53]	Percentage of Census Tracts Above the County Total Minority Population Percentage[54]
Y	90.7	65.9	65.9	78.0

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022, U.S. Census Bureau 2019a, U.S. Census Bureau 2019b, U.S. Census Bureau 2019c

3.9.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 3F is detailed in Table 51: Disadvantaged Community Designation – Study Area 3F. As indicated in the table, a total of 129 Census tracts would be crossed by pipeline segments within Study Area 3F. Of these 129 tracts, 117 are identified as DACs.

3.9.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the county and Census tracts within Study Area 3F (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are detailed in Table 52: Low-Income/Poverty Conditions – Study Area 3F. The median household income for Census tracts within Study Area 3F ranges from $26,844 to $136,000. The median household income for Los Angeles County is $68,044. The data show that 97 tracts in Segment Y are below the median household income for the county in which they are located.

The unemployment rate for Census tracts within Study Area 3F ranges from 0 percent to 19.9 percent. The median unemployment rate for Los Angeles County is 6.1 percent. The data show that 74 tracts in Segment Y have higher unemployment rates than the county in which they are located.

[51] Four of the 129 Census tracts that would be crossed by pipeline segments within Study Area 3F did not have sufficient data to determine population below poverty, linguistic isolation, or minority population. These communities were not included in the calculation of the percentage.
[52]The Los Angeles County average percentage of population below poverty/low income is 14.9 percent.
[53]The Los Angeles County percentage of limited English-speaking households is 12.6 percent.
[54]The Los Angeles County total minority population percentage is 75.5 percent.

Table 51: Disadvantaged Community Designation – Study Area 3F[55]

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037102103	1,763	Y	N/A	N/A
6037102104	3,721	Y	N/A	N/A
6037102105	1,905	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037102107	4,349	Y	N/A	N/A
6037104105	6,054	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037104108	6,001	Y	CalEnviroScreen 3.0 Disadvantaged Communities Only	DAC
6037104201	4,569	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037104203	5,441	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037104310	4,962	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037104320	5,292	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037104701	4,402	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037104703	2,174	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037104704	4,321	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037106403	3,667	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037106405	4,758	Y	N/A	DAC
6037106406	5,839	Y	N/A	N/A
6037106510	5,618	Y	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6037106520	5,920	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037106603	3,156	Y	N/A	N/A
6037107010	3,141	Y	N/A	DAC
6037121101	2862	Y	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037121102	2479	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037122200	3469	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037185202	3627	Y	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6037185203	3566	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037185310	3131	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037185320	2991	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC

[55] Each row that is shaded is considered a DAC.

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037186301	2906	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037186401	3489	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037186403	2698	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037186404	2631	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037187101	3438	Y	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6037187102	3739	Y	CalEnviroScreen 4.0 Top 25 CalEnviroScreen 4.0 Top 25 Percent	DAC
6037187200	2963	Y	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6037188100	3918	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037188300	3800	Y	N/A	N/A
6037197200	3909	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037199000	5391	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037199201	3660	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037199202	3,155	Y	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037199300	4,202	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037199400	4,759	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037199700	3,063	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037199800	5,828	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037199900	2,692	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037203300	2,000	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037203500	2,907	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037203600	5,276	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037203720	4,072	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037203800	4,829	Y	N/A	DAC
6037204110	3,286	Y	N/A	DAC
6037204120	2,971	Y	CalEnviroScreen 3.0 Disadvantaged Communities Only	DAC
6037204200	3,657	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037204300	5,445	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037204410	2,575	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037204420	3,154	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037204700	5,510	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037204810	5,277	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037204820	2,241	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037204920	2,751	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037205110	3,904	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037205120	3548	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037301205	2106	Y	N/A	N/A
6037301206	5281	Y	N/A	DAC
6037301502	6750	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037301601	6112	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037301701	2962	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037301702	5835	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037302301	3985	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037302302	5337	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037302401	7395	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037302505	4376	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037302506	3262	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037310100	5644	Y	N/A	N/A
6037310400	3247	Y	N/A	N/A
6037310601	6383	Y	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037310602	2853	Y	N/A	N/A
6037310701	2181	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037310702	6567	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037310703	4793	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037320100	7601	Y	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037320202	6151	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037532400	45	Y	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037533201	2,788	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037533202	3,124	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037533203	1,931	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037533300	3,346	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037533501	3,051	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037533601	4,762	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037533602	5,546	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037533603	6,986	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037534301	4,320	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037534403	2,795	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037534404	3,677	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037534405	4,351	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037534501	5,226	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037534502	4,654	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037535701	5,237	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037536000	3,701	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037536103	5,353	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037536104	3,900	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037540000	7,139	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037540101	6,743	Y	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037540102	6,905	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037541801	6,180	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037541802	5,306	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542103	3,685	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542104	3,473	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542105	4,781	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542106	3,523	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542200	7,155	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542401	4,735	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542402	3,306	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542501	4,891	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542502	5,006	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037542900	3,254	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037543000	4,531	Y	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037543100	7,254	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037543201	3,605	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6037543202	5,124	Y	CalEnviroScreen 4.0 Top 25 Percent	DAC
6037543304	5,872	Y	N/A	N/A
6037543305	3,776	Y	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037543321	5,446	Y	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6037543322	7,959	Y	CalEnviroScreen 3.0 Disadvantaged Communities Only	N/A
6037544001	4,574	Y	CalEnviroScreen 4.0 Top 25 Percent	N/A
6037980009	5	Y	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A
6037980021	33	Y	N/A	N/A
6037980022	0	Y	N/A	N/A
6037980025	0	Y	CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count	N/A

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

Table 52: Low-Income/Poverty Conditions – Study Area 3F

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Los Angeles County	N/A	$68,044	6.1	14.9
6037102103	Y	$76,833	8.6	4.8
6037102104	Y	$80,789	9.9	12.1
6037102105	Y	$57,614	5.8	18.7
6037102107	Y	$109,375	5.9	10.1
6037104105	Y	$54,960	6.8	22.3
6037104108	Y	$51,875	7	15.7
6037104201	Y	$60,129	5.2	21.6
6037104203	Y	$49,609	5.1	25.7
6037104310	Y	$74,940	4.5	13.3
6037104320	Y	$56,021	1.5	15.1
6037104701	Y	$35,357	10.6	32.6
6037104703	Y	$41,875	5.9	32.2
6037104704	Y	$43,338	4.2	28.6
6037106403	Y	$72,604	3.7	4.7
6037106405	Y	$59,352	5.4	28.5
6037106406	Y	$85,115	2	5.5
6037106510	Y	$85,521	1.8	8.3
6037106520	Y	$63,924	2.1	15.4
6037106603	Y	$112,404	3.3	3.7
6037107010	Y	$69,934	9.4	10
6037121101	Y	$59,267	5.1	13.5
6037121102	Y	$48,750	4.3	15.6
6037122200	Y	$54,250	4.1	16
6037185202	Y	$64,623	7.1	10.3
6037185203	Y	$49,698	9.4	22.5
6037185310	Y	$64,671	9	13.3
6037185320	Y	$42,202	11.5	27.4
6037186301	Y	$53,125	8.2	29.5

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6037186401	Y	$41,450	5.8	16.2
6037186403	Y	$59,861	6.1	13.9
6037186404	Y	$62,083	7.7	14.1
6037187101	Y	$76,522	2.7	9.5
6037187102	Y	$56,683	9.1	27.2
6037187200	Y	$76,042	6.8	9
6037188100	Y	$62,500	1.7	9.6
6037188300	Y	$114,318	9.2	9.1
6037197200	Y	$59,719	1.4	10.1
6037199000	Y	$57,625	5.8	15.8
6037199201	Y	$34,277	13.7	19
6037199202	Y	$67,257	10.7	15.9
6037199300	Y	$81,172	10.5	20.5
6037199400	Y	$44,637	9.7	15.9
6037199700	Y	$42,614	3.7	23.1
6037199800	Y	$37,755	8.5	23.5
6037199900	Y	$39,184	11.5	15.4
6037203300	Y	$39,750	11.9	43.4
6037203500	Y	$41,444	3.9	32.8
6037203600	Y	$49,922	2.6	24.5
6037203720	Y	$37,917	6.1	32.1
6037203800	Y	$45,108	6.8	28.2
6037204110	Y	$57,417	7.4	20.4
6037204120	Y	$52,813	6.4	17.8
6037204200	Y	$32,946	4.9	34.6
6037204300	Y	$41,912	9.4	22.7
6037204410	Y	$47,232	3.2	33.7
6037204420	Y	$29,730	6.4	32.6
6037204700	Y	$54,809	8.6	25.2
6037204810	Y	$46,440	6.7	24.2
6037204820	Y	$40,000	2.5	22.6

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6037204920	Y	$39,904	6.4	29.4
6037205110	Y	$47,219	5	25.4
6037205120	Y	$26,844	3.3	40
6037301205	Y	$107,159	7.1	4.3
6037301206	Y	$63,715	5.7	18
6037301502	Y	$50,205	10.2	19.8
6037301601	Y	$39,053	7.7	13.7
6037301701	Y	$84,688	3.8	7.1
6037301702	Y	$56,571	7.3	11.7
6037302301	Y	$55,795	8.8	17.6
6037302302	Y	$52,763	6.8	17.3
6037302401	Y	$41,300	13.2	30.3
6037302505	Y	$35,269	10	22.6
6037302506	Y	$61,283	5	17.9
6037310100	Y	$136,000	4	8.1
6037310400	Y	$92,955	6.7	4.2
6037310601	Y	$69,277	8.7	11.6
6037310602	Y	$86,806	2.8	6.7
6037310701	Y	$30,371	7.7	18.6
6037310702	Y	$45,632	5.9	18.9
6037310703	Y	$42,344	6.6	27.5
6037320100	Y	$72,438	5.5	11.2
6037320202	Y	$77,386	2.8	8.4
6037532400	Y	$42,188	0	0
6037533201	Y	$39,878	16.2	23.4
6037533202	Y	$54,205	8.9	12.6
6037533203	Y	$46,645	13	20.2
6037533300	Y	$37,841	6.1	23.2
6037533501	Y	$41,549	8.9	24.9
6037533601	Y	$46,831	6.5	22.8
6037533602	Y	$46,429	6.1	19

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6037533603	Y	$42,750	9.1	32.6
6037534301	Y	$50,943	10	25.9
6037534403	Y	$44,318	8.4	21.1
6037534404	Y	$42,841	8.9	23.3
6037534405	Y	$45,875	6.8	29.6
6037534501	Y	$55,811	7.1	17.8
6037534502	Y	$48,900	5.8	23.9
6037535701	Y	$52,500	10.1	10.5
6037536000	Y	$49,773	10.3	16.6
6037536103	Y	$59,933	11.8	15.2
6037536104	Y	$49,444	9.9	18.1
6037540000	Y	$59,330	10.1	20.2
6037540101	Y	$81,494	7.9	6.9
6037540102	Y	$60,934	7.5	16.2
6037541801	Y	$50,714	10.5	15.1
6037541802	Y	$56,557	5.1	12.7
6037542103	Y	$56,089	9.7	15.1
6037542104	Y	$66,389	3.8	19.8
6037542105	Y	$48,125	8.7	22.3
6037542106	Y	$51,496	8	28
6037542200	Y	$51,181	9.4	26.3
6037542401	Y	$48,938	19.9	23
6037542402	Y	$68,203	9.3	11.6
6037542501	Y	$58,934	15.7	27.8
6037542502	Y	$38,051	9.5	35.5
6037542900	Y	$53,550	6.4	29.6
6037543000	Y	$52,333	10.2	12.4
6037543100	Y	$57,445	6.1	14
6037543201	Y	$57,805	8	16.5
6037543202	Y	$46,250	12.6	23.6
6037543304	Y	$86,435	9.7	6.2

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6037543305	Y	$71,750	3.7	6.1
6037543321	Y	$90,022	5.9	10.4
6037543322	Y	$114,388	5.5	4.5
6037544001	Y	$78,611	3.6	6.4
6037980009	Y	N/A	0	N/A
6037980021	Y	N/A	0	0
6037980022	Y	N/A	N/A	N/A
6037980025	Y	N/A	N/A	N/A

Sources: U.S. Census Bureau 2019b, U.S. Census Bureau 2019d, U.S. Census Bureau 2019e

The percentage of population below poverty line for Census tracts within Study Area 3F ranges from 0 percent to 43.4 percent. The percentage of the population below the poverty line for Los Angeles County is 14.9 percent. The data show that 83 tracts in Segment Y are above the median percentage of population below the poverty line for the counties in which they are located.

3.9.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Los Angeles County that would be crossed by the segments in Study Area 3F are detailed in Table 53: Public Services – Study Area 3F.

Table 53: Public Services – Study Area 3F

County/Census Tract	Segment	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Los Angeles	Y	1,950	24	54	34	21,395

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.9.0.5 Minority/Ethnicity

The minority/ethnicity statistics of the Los Angeles County Census tracts that would be crossed by Segment Y in Study Area 3F are detailed in Table 54: Minority/Ethnicity Percentages – Study Area 3F. The minority population percentage for Census tracts within Study Area 3F ranges from 21.1 percent to 100 percent. The total minority percentage for Los Angeles County is 75.5 percent. The data show that 99 tracts in Segment Y have higher percentage rates than the counties in which they are located.

Table 54: Minority/Ethnicity Percentages – Study Area 3F

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
Los Angeles County	N/A	29.4	7.6	1.4	15.0	0.3	25.8	49.0	75.5
6037102103	Y	76.5	1.4	0	12.7	0	3.1	20.1	37.3
6037102104	Y	80.2	2.1	0.1	9.8	0.2	1.7	13.8	31
6037102105	Y	65.7	0.9	1.3	6.5	0.2	19.9	67.3	77.6
6037102107	Y	76.9	1.6	0.1	9.2	0	9.1	27.5	40.1
6037104105	Y	54.1	4.6	0.5	11.5	0	24.6	74	94.3
6037104108	Y	59	7.2	0.2	3.4	0.2	28.4	83	94.6
6037104201	Y	62.2	9.1	1.2	0	0	27.3	89.3	98.8
6037104203	Y	58	8.4	0.8	1.2	0	30.5	88.5	98.5
6037104310	Y	60.9	1.9	0.2	0.4	0	34.1	95.6	98.6
6037104320	Y	65.5	4.6	0	1.1	0	20.3	89.2	97.4
6037104701	Y	65.5	4	0	0.3	0.6	29.1	94.5	98.7
6037104703	Y	65	8.8	2.5	0	0	22.6	85.4	94
6037104704	Y	58	12.8	0	2.1	0	26.1	78.2	93.6
6037106403	Y	82.9	1.8	0.8	0.2	0	13.9	90.5	92.4
6037106405	Y	68.5	6.5	0	1.4	0	20.6	74.4	83
6037106406	Y	78.1	3.2	0.6	7.2	0	7.5	68.7	78.8
6037106510	Y	73.1	5.1	0.8	7.8	0	10	72.6	86.2

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037106520	Y	84.7	0.3	0	2.1	0	11.7	88.9	91.5
6037106603	Y	66.1	2.2	0	23.2	1.2	3.4	17.4	47.3
6037107010	Y	74	0.4	0.3	0.6	0	21.9	95.4	97.2
6037121101	Y	68.1	1	0	9.5	0	19.6	69.7	82.6
6037121102	Y	85.8	0	0	4.4	0	7.8	48.5	54.1
6037122200	Y	76	0.6	0	2.4	0	17.7	75.1	80.5
6037185202	Y	60.1	2.5	0	11.6	0	21.8	53.5	67.5
6037185203	Y	43.8	0.8	5.4	8.1	0	38.7	77.5	88.9
6037185310	Y	49.2	1.3	0	8.7	0.1	39.9	83.9	94
6037185320	Y	45	0.6	2.4	5.9	0	45.7	84.3	90.1
6037186301	Y	50.6	6.6	4.2	6.4	0	25.3	68.9	82.3
6037186401	Y	35.8	0.3	2.4	14.1	0	42	79.5	93.8
6037186403	Y	37.2	1.5	5.6	24.5	0	29	64.8	90
6037186404	Y	37.6	0.5	1.7	18.9	0	36.7	69.1	88.6
6037187101	Y	60.2	0.7	0.7	20	0	15.9	41.5	63.9
6037187102	Y	40.8	2.5	5	21.2	0.7	27.6	55.8	80.2
6037187200	Y	54.4	0.5	0	10.4	0.6	30.7	74.6	87.4
6037188100	Y	47.2	1.9	2.6	8	0	32.9	56.7	72.5
6037188300	Y	40.9	0.3	7.7	27.7	0	18.1	29.5	64.8

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037197200	Y	32.4	3.3	1	30.6	0	25.8	53.7	89.2
6037199000	Y	32	1.5	0.2	26.8	0	35.2	66.5	94.7
6037199201	Y	18.1	0	3.6	30	0	47.5	68.3	98.3
6037199202	Y	43.7	1	4.4	11.9	0	36.6	74.9	89.3
6037199300	Y	44.2	1.4	2.5	12.4	0	36.2	59.2	74
6037199400	Y	31	4.4	0.3	19.4	0	38.4	70.4	96.1
6037199700	Y	32.9	0.7	0.9	15	0.6	48.1	65.4	82.3
6037199800	Y	20.8	0	4.9	37.2	0	35.8	62.3	98.7
6037199900	Y	28.1	1.8	0.2	14.2	0	55.7	82.4	98.1
6037203300	Y	51.5	10.5	1.5	6.7	0.3	23.7	75.6	97.1
6037203500	Y	59.8	3.6	1.3	14.7	0.3	17	77.2	95.1
6037203600	Y	67.3	0.9	2.2	1.1	0	28.6	96	98.3
6037203720	Y	55.5	0	3.5	0.5	2.8	35.7	97.7	98.5
6037203800	Y	51.4	0.2	1.1	2.5	0	41.9	97.1	99
6037204110	Y	45.6	0.2	0	0	0	52.4	96.4	96.4
6037204120	Y	57.4	1.1	0.3	0.8	0	37.3	93.4	96.9
6037204200	Y	67.6	0.3	0	1.7	0	29.9	96.9	99
6037204300	Y	57	0.4	0	1.5	0	39.2	95.6	97.5
6037204410	Y	47.3	0.2	0.2	2	0	49.7	96.5	98.6

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037204420	Y	47.8	6.1	1.1	2.8	0	40	90.8	98.8
6037204700	Y	60.6	1.1	0.9	1.3	0	33.4	95.9	98.7
6037204810	Y	64.4	2.2	0.9	0.5	0	30.8	96.6	100
6037204820	Y	44	2.3	0	0.2	0	53.5	94.9	97.4
6037204920	Y	68.2	0.8	2.1	0	0	28.6	97.3	98.3
6037205110	Y	65	0.5	0	2.2	0	31.5	95.8	98.5
6037205120	Y	54.6	2	0.2	1	0	41.5	96.3	99.3
6037301205	Y	80.8	1.4	0.4	12.7	0	1.7	11.5	27.3
6037301206	Y	80.6	3	0	13.6	0	1.4	8.2	25.9
6037301502	Y	87.7	0	0	8.3	0	2.1	11.6	21.1
6037301601	Y	83.9	3.1	0	4.2	0	5.4	21.9	31
6037301701	Y	66.5	4.1	0	12.9	0	12.2	30.4	50.8
6037301702	Y	74.7	2.2	1.3	15.4	0.1	3.8	14.1	35.1
6037302301	Y	75.9	0.8	0.2	15.7	0	5.4	21.7	40
6037302302	Y	69.5	2.8	0.8	15.6	0	10.3	45.5	63.3
6037302401	Y	75.6	2.7	0	12.8	0	7.9	33.2	49
6037302505	Y	70.5	5.5	1.3	8.5	0	13.1	33.2	48.2
6037302506	Y	75.1	2	0	11.1	0.8	3.8	27.8	46.2
6037310100	Y	78.6	5	0	10.2	0	2.7	17	33.9

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037310400	Y	73.5	1.3	1.1	12.4	0	9.6	16.8	37.4
6037310601	Y	53.3	5	0	15.3	0	23.5	23.8	53.6
6037310602	Y	66	1.9	0.2	18.4	0	10.5	19.2	43.9
6037310701	Y	80.5	0.4	0.9	8	0	6.8	11.3	24.3
6037310702	Y	71.9	2.5	0	16	0	4.6	13.2	36.6
6037310703	Y	71.2	3.8	0	9.9	0	10.6	20.8	35.9
6037320100	Y	70	2	0.4	3.2	0	22.8	91.2	95.6
6037320202	Y	63.6	0.2	0.9	1.7	0.1	32	91.6	93.4
6037532400	Y	37.8	2.2	0	0	0	60	80	82.2
6037533201	Y	61.1	0	0.6	0	0	37.8	98	98
6037533202	Y	69.7	0	0.3	0	0.3	29.8	99.3	99.6
6037533203	Y	52.9	0.1	0	0.5	0	45.5	98.1	99.7
6037533300	Y	79.6	0.4	1.2	0	0	18.7	98	98.7
6037533501	Y	57.7	0	1.6	0.2	0	39.9	99.7	99.7
6037533601	Y	82.4	0	0	0.8	1.1	14.7	94.8	96.3
6037533602	Y	75.9	0	0.2	1.4	0	17.8	90.4	94.7
6037533603	Y	77.7	1	2.2	0	0	17	91.4	93.1
6037534301	Y	81.5	1.7	0	1.6	0	11.7	92.2	96.4
6037534403	Y	69.2	0.2	1.1	0	0	27.7	94.2	94.2

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037534404	Y	79.5	0.3	0.3	0.2	1	16.3	90.3	92.2
6037534405	Y	84.7	0.4	0.2	0.7	0	13	97.5	99.3
6037534501	Y	59.9	0.1	0.8	0	0	39.2	97.2	98.3
6037534502	Y	71.1	3.4	3.3	0.3	0	19.9	96.9	97.7
6037535701	Y	66.3	0	0.4	1.8	0.1	29.7	97.2	99.3
6037536000	Y	61.3	0	0.8	0.4	0	37.6	97.8	98.9
6037536103	Y	52.5	0.2	2.6	0.1	0	40.1	96.5	97.8
6037536104	Y	68.4	1.5	0.5	0.8	0	27.4	93.7	96.7
6037540000	Y	72.1	2.8	0	1.3	0	22.1	95.1	98.6
6037540101	Y	62.8	7.6	0	0	1	27.6	88.9	97.5
6037540102	Y	57	10.7	1.5	0	0.3	30.3	86.5	98.8
6037541801	Y	36.2	19.3	0.3	0	0	41.3	77.7	98.9
6037541802	Y	54.7	11	0	2	0	30.6	85.8	99
6037542103	Y	41.6	12.5	0	0.2	0	42.9	87	99.6
6037542104	Y	55.1	9.1	1.2	0.4	0	32	85.9	96.7
6037542105	Y	44.6	13.2	1.3	0	0	39.8	83.8	98.9
6037542106	Y	39.6	8.6	0	3.4	0	46.1	85.2	98.8
6037542200	Y	25.6	27.5	0	0	0	45	71.4	99
6037542401	Y	33.6	35	0	1.3	2.2	26	59.9	99.3

County/ Census Tract	Segment	Percent							
		White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Other Race	Hispanic or Latino Origin	Total Minority[a]
6037542402	Y	29.1	33.7	0.6	0.6	0	35.4	65.3	99.5
6037542501	Y	26.9	46.7	0	0.2	0	24.4	42.9	100
6037542502	Y	37.9	34.6	0.8	0.1	0	26	62.7	99.3
6037542900	Y	38	13.2	0.9	0.4	0.3	45.6	84.8	99.1
6037543000	Y	22	49.9	0	0.3	0.2	22.2	47.5	98.4
6037543100	Y	23.5	48	0.2	1.6	0	22.2	45.7	99
6037543201	Y	33.2	35.5	0.2	1.2	0	28	60.6	96.8
6037543202	Y	43.8	15.7	0	1.7	3.2	35	78.1	98.9
6037543304	Y	11.1	81.9	0	3.2	0	1.3	6.2	92.1
6037543305	Y	26.6	26	0	2.7	0.6	40.1	50.1	81.1
6037543321	Y	12.4	59.2	1.3	16.2	0.3	3.1	11.8	93
6037543322	Y	6.4	72.9	1.2	6.9	3.6	4.1	10.5	97.8
6037544001	Y	56.1	6.3	0.8	11.3	5	15.4	69.4	93
6037980009	Y	40	0	0	40	0	20	80	100
6037980021	Y	12.1	0	0	42.4	0	18.2	45.5	87.9
6037980022	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6037980025	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic White.
Source: U.S. Census Bureau 2019a

3.10 STUDY AREA 4A

3.10.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link route of Segment R within Study Area 4A. The corresponding unincorporated area is detailed in Table 55: Cities and Unincorporated Areas Crossed by Study Area 4A.

Table 55: Cities and Unincorporated Areas Crossed by Study Area 4A

Segment	Jurisdiction	Miles Crossed through Jurisdiction
R	Unincorporated Kern County	87.3

Existing conditions for Study Area 4A were determined using data from the U.S. Census, CalEnviroScreen, and the CEJST.

3.10.0.1 Census Tract Statistics

Table 56: Census Tract Statistics by Segment Crossed – Study Area 4A provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 4A. The table uses the data for Kern County as a baseline to compare the Census tracts. The table lists the percentage of Census tracts within the segment that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of Census tracts that would be crossed by each segment and that have a higher population percentage below the poverty line, in linguistically isolated households, or minority population when compared to the Kern County averages.

3.10.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 4a are detailed in Table 57: Disadvantaged Community Designation – Study Area 4A. As indicated in the table, a total of five Census tracts are crossed by Study Area 4A. All five tracts are identified as DACs. Of these five tracts, Segment R would cross all five.

Table 56: Census Tract Statistics by Segment Crossed – Study Area 4A

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[56]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[57]	Percentage of Census Tracts Above the County Total Minority Population Percentage[58]
Segment R	100	40	60	40

Sources: OEHHA 2021; U.S. Council on Environmental Quality 2022; U.S. Census Bureau 2019a, 2019c, 2019e

Table 57: Disadvantaged Community Designation – Study Area 4A[59]

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6029003304	3,358	R	CalEnviroScreen 4.0 Top 25 Percent	DAC
6029003306	4,199	R	N/A[60]	DAC
6029004500	2,635	R	CalEnviroScreen 4.0 Top 25 Percent	DAC
6029006007	6,245	R	N/A	DAC
6029006202	8,427	R	CalEnviroScreen 4.0 Top 25 Percent	DAC

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

3.10.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the county and Census tracts within Study Area 4A (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are detailed in Table 58: Low-Income/Poverty Conditions – Study Area 4A. The median household income for Census tracts within Study Area 4A, including Segment R, ranges from $35,560 to $59,792. The median household income for Kern County is $53,530. The data show that three tracts in Segment R are below the median household income for Kern County.

The unemployment rate for the Census tracts within Study Area 4A and Segment R ranges from 6.5 percent to 13.4 percent. The median unemployment rate for Kern County is 9.8 percent. The data show that two tracts in Segment R have higher unemployment rates than Kern County.

[56] The Kern County average percentage of the population that is below the poverty line/low income is 14.9 percent.
[57] The Kern County percentage of limited English-speaking households is 7.6 percent.
[58] The Kern County total minority population percentage is 65.8 percent. The Kern County percentage of limited English-speaking households is 7.6 percent
[59] Each shaded row is considered a DAC.
[60] N/A indicates that the Census tract identified is not in a DAC in the designated screening tool.

Table 58: Low-Income/Poverty Conditions – Study Area 4A

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Kern County	N/A	$53,350	9.8	21.0
6029003304	R	$59,792	10.4	15.2
6029003306	R	$54,314	13.4	12.0
6029004500	R	$35,560	6.5	25.8
6029006007	R	$54,837	8.8	16.0
6029006202	R	$50,357	7.0	21.9

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

3.10.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Kern County that would be crossed by Segment R in Study Area 4A are detailed in Table 59: Public Services – Study Area 4A.

Table 59: Public Services – Study Area 4A

County/Census Tract	Segment	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Kern County	R	280	15	9	5	1,311

Sources: U.S. Census Bureau 2019b, 2019c, 2019d

3.10.0.5 Minority/Ethnicity

Minority/ethnicity statistics of Kern County and the Census tracts that would be crossed by Segment R in Study 4A are detailed in Table 60: Minority/Ethnicity Percentages – Study Area 4A. The minority population percentage for Census tracts within Segment R and Study Area 4A ranges from 23.9 percent to 95.5 percent. The total minority percentage for Kern County is 65.8 percent. The data show that two tracts in Segment R have higher percentage rates than the county average.

Table 60: Minority/Ethnicity Percentages – Study Area 4A

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
Kern County	N/A	74.4	5.5	1.0	4.7	0.2	10.7	53.3	65.8
6029003304	R	80.6	2.4	1.4	3.3	0.5	5.1	39.7	47.3
6029003306	R	82.4	0.0	7.8	4.7	0.0	1.9	23.6	33.0
6029004500	R	91.8	0.0	1.3	1.0	0.0	6.0	92.8	93.7
6029006007	R	92.8	0.3	2	0.5	0.0	0.8	17.7	23.9
6029006202	R	80.4	1.3	0.2	1.8	0.0	16.3	92.9	95.5

Source: U.S. Census Bureau 2019a

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic white.

3.11 STUDY AREA 4B

3.11.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes within Study Area 4B. The corresponding cities and unincorporated areas are detailed in Table 61: Cities and Unincorporated Areas Crossed by Study Area 4B.

Table 61: Cities and Unincorporated Areas Crossed by Study Area 4B

Segment	Jurisdiction	Miles Crossed through Jurisdiction
F	City of Adelanto	6.9
	City of Barstow	6.4
	City of Victorville	3.8
	Unincorporated San Bernardino County	135.9

Existing conditions for Study Area 4B were determined using data from the U.S. Census, CalEnviroScreen, and the CEJST.

3.11.0.1 Census Tract Statistics

Table 62: Census Tract Statistics by Segment Crossed – Study Area 4B provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 4B. The table uses the data for San Bernardino County as a baseline to compare to the Census tracts. The table lists the percentage of Census tracts within Segment F that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of Census tracts crossed by each segment that have a higher percentage of population below poverty, linguistically isolated households, or minority population when compared to the averages of San Bernardino County.[61]

3.11.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 4B are detailed in Table 63: Disadvantaged Community Designation – Study Area 4B. As indicated in the table, a total of 13 census tracts would be crossed by Study Area 4B. Of these 13 tracts, 11 are identified as DACs. Study Area 4B only includes Segment F, therefore, Segment F would cross all 11 tracts.

[61] One of the 14 Census tracts crossed by Study Area 4B did not have sufficient data to determine the population below the poverty line, linguistic isolation, or minority population. These communities were not included in the calculation of the percentage.

Table 62: Census Tract Statistics by Segment Crossed – Study Area 4B

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[62]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[63]	Percentage of Census Tracts Above the County Total Minority Population Percentage[64]
F	94.6	84.6	23.1	53.8

Sources: OEHHA 2021; U.S. Council on Environmental Quality 2022; U.S. Census Bureau 2019a, 2019c, 2019e

3.11.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of the county and Census tracts within Study Area 4B (including household income, unemployment rate, and the percentage of the population that is below the poverty line/low-income) are detailed in Table 64: Low-Income/Poverty Conditions – Study Area 4B. The median household income for Census tracts within Study Area 4B ranges from $27,188 to $71,828. The median household income for San Bernardino County is $63,362. The data show that 10 tracts in Segment F are below the median household income for San Bernardino County.

The unemployment rate for Census tracts within Study Area 4B ranges from 3.2 percent to 16.8 percent. The median unemployment rate for San Bernardino County is 7.7 percent. The data show that nine tracts in Segment F have higher unemployment rates than San Bernardino County.

The percentage of the population below the poverty line for Census tracts within Study Area 4B ranges from 13.2 percent to 44.1 percent. The percentage of the population below the poverty line in San Bernardino County is 16.0 percent. The data show that 11 tracts are above the percentage of population below the poverty line in San Bernardino County.

3.11.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within San Bernardino County that would be crossed by Segment F in Study Area 4B are detailed in Table 65: Public Services – Study Area 4B.

[62] The San Bernardino County average percentage of population below poverty/low income is 16.0 percent.
[63] The San Bernardino County percentage of limited English-speaking households is 6.4 percent.
[64] The San Bernardino County total minority population percentage is 71.5 percent.

Table 63: Disadvantaged Community Designation – Study Area 4B[65]

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6071009110	18,069	F	N/A	CEJST DAC
6071009114	10,227	F	N/A	CEJST DAC
6071009116	6,700	F	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071009117	8,697	F	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071010300	3,547	F	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071011600	8,488	F	N/A	N/A
6071011700	1,660	F	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071011800	7,733	F	N/A	CEJST DAC
6071011900	2,645	F	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071012001	5,815	F	N/A	CEJST DAC
6071012002	5,653	F	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071012104	5,280	F	N/A	N/A
6071980200	3,817	F	N/A	CEJST DAC

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

3.11.0.5 Minority/Ethnicity

Minority/ethnicity statistics of San Bernardino County and Census tracts that would be crossed by Segment F in Study 4B are detailed in Table 66: Minority/Ethnicity Percentages – Study Area 4B. The minority population percentage for Census tracts within Study Area 4B ranges from 37.7 percent to 86.6 percent. The total minority percentage for San Bernardino County is 71.5 percent. The data show that seven tracts in Segment F have higher percentage rates than the San Bernardino County average.

Additional environmental studies—including surveys, agency consultation, and public engagement—are required to assist in making a final determination as to whether Angeles Link would have a disproportionate impact on DACs.

[65] Each shaded row is considered a DAC.

Table 64: Low-Income/Poverty Conditions – Study Area 4B

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
San Bernardino County	N/A	$63,362	7.7	16.0
6071009110	F	$71,828	13.8	18.9
6071009114	F	$54,573	11.4	22.8
6071009116	F	$27,188	16.8	44.1
6071009117	F	$36,818	10.7	27.7
6071010300	F	$52,975	13.7	23.8
6071011600	F	$68,644	5.4	13.2
6071011700	F	$36,360	10.3	30.5
6071011800	F	$49,985	3.2	25.1
6071011900	F	$51,814	9.8	18.7
6071012001	F	$56,806	10.1	25.9
6071012002	F	$49,053	4.4	25.3
6071012104	F	$62,609	9.2	27.0
6071980200	F	N/A	N/A	N/A

Sources: U.S. Census Bureau 2019b, 2019c, 2019d

Table 65: Public Services – Study Area 4B

County/Census Tract	Segment	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
San Bernardino County	F	595	3	13	9	4,083

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

Table 66: Minority/Ethnicity Percentages – Study Area 4B

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
San Bernardino County	N/A	61.20	8.3	0.8	7.2	0.3	17.2	53.3	71.5
6071009110	F	56.6	22.3	0.7	6.2	0.0	9.0	51.6	83.6
6071009114	F	57.1	18.6	0.2	1.7	0.0	11.3	65.1	87.3
6071009116	F	58.8	25.7	0.1	2.5	0.0	10.4	57.8	86.6
6071009117	F	72.6	16.6	0.1	0.4	0.6	7.4	60	77.6
6071010300	F	83.2	3.2	2.8	6.4	0.4	3.0	26.7	39.1
6071011600	F	86.5	5.6	0.0	2.7	0.0	0.0	26.5	38.5
6071011700	F	80.7	2.0	0.9	1.1	0.0	6.5	49.2	59.0
6071011800	F	87.3	6.6	0.4	1.4	0.0	1.6	45.2	55.5
6071011900	F	80.2	5.2	2.8	1.4	0.0	6.2	45.0	57.0
6071012001	F	59.1	15.6	1.4	7.0	5.7	7.6	46.0	76.5
6071012002	F	67.2	11.5	3.1	1.8	0.0	10.0	53.9	71.9
6071012104	F	87.8	6.7	1.5	0.0	0.2	2.4	29.4	37.7
6071980200	F	35.8	27.5	3.1	2.0	1.4	19.9	48.0	84.3

Source: U.S. Census Bureau 2019a

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic white.

3.12 STUDY AREA 4C

3.12.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes within Study Area 4C of Angeles Link. The corresponding cities and unincorporated areas are listed in Table 67: Cities and Unincorporated Areas Crossed by Study Area 4C.

Table 67: Cities and Unincorporated Areas Crossed by Study Area 4C

Segment	Jurisdiction	Miles Crossed through Jurisdiction
H	City of Needles	0.7
	Unincorporated San Bernardino County	114.5
O	City of Hesperia	3.7
	Unincorporated San Bernardino County	61.2
P	City of Adelanto	4.5
	Town of Apple Valley	2.3
	City of Victorville	6.2
	Unincorporated San Bernardino County	40.3
X	Unincorporated San Bernardino County	124.6

Existing conditions for Study Area 4C were determined using data from the U.S. Census, CalEnviroScreen, and the Climate and CEJST.

3.12.0.1 Census Tract Statistics

Table 68: Census Tract Statistics by Segment Crossed – Study Area 4C provides a summary of the socioeconomic status of the individual segments and alternative routing options of the Study Area. The table uses the data for San Bernardino County as a baseline to compare to the Census tracts, and also lists the percentage of Census tracts that have a CalEnviroScreen or CEJST DAC designation. The table also details the percentage of Census tracts that would be crossed by each segment that have a higher percentage of the population below the poverty line, linguistically isolated households, or minority populations when compared to the averages of San Bernardino County.[66]

[66] One of the 19 Census tracts that would be crossed by Study Area 4C did not have sufficient data to determine the population below the poverty line. This Census tract was not included in this calculation.

Table 68: Census Tract Statistics by Segment Crossed – Study Area 4C

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households	Percentage of Census Tracts Above the County Total Minority Population Percentage
H	100	100	0.0	0
O	55.5	44.4	11.1	0.0
P	88.9	80.0	20.0	60.0
X	100	100	0.0	0.0

Sources: OEHHA 2021; U.S. Council on Environmental Quality 2022; U.S. Census Bureau 2019a, 2019c, 2019e

3.12.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within the Study Area is detailed in Table 69: Disadvantaged Community Designation – Study Area 4C. As indicated in the table, a total of 19 Census tracts would be crossed by Study Area 4C. Of these 19 tracts, 13 are identified as DACs. Of these 13 tracts, Segment P would cross eight, Segment H would cross three, Segment O would cross four, and Segment X would cross two.

3.12.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of San Bernardino County and Census tracts within Study Area 4C (including household income, unemployment rate, and the percentage of population that is below the poverty line/low-income) are detailed in Table 70: Low-Income/Poverty Conditions – Study Area 4C. The median household income for Census tracts within the area of potential effect in Study Area 4C ranges from $27,188 to $82,790. For Segment P, the median household income ranges from $27,188 to $71,828; Segment O ranges from $48,182 to $82,790; and Segments H and X from $31,845 to $52, 975. The median household income for San Bernardino County is $63,362. The data show that seven tracts in Segment P, eight tracts in Segment O, three tracts in Segment H, and two tracts in Segment X are below the median household income for San Bernardino County.

The unemployment rate for Census tracts within Study Area 4C ranges from 3.9 percent to 22.5 percent. The unemployment rate for San Bernardino County is 7.7 percent. For Segment P, the unemployment rate ranges from 9.2 to 16.8; Segment O ranges from 3.9 to 13.7 percent; Segment H ranges from 5.8 to 22.5; and Segment X ranges from 13.7 to 22.5. The data show that seven tracts in Segment P, five tracts in Segment O, and two in Segments H and X have higher unemployment rates than San Bernardino County.

Table 69: Disadvantaged Community Designation – Study Area 4C[67]

Census Tract	Population	Segment(s)	CalEnviroScreen Designation	CEJST Designation
6071009110	18,069	P	N/A	CEJST DAC
6071009114	10,227	P	N/A	CEJST DAC
6071009116	6,700	P	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071009117	8,697	P	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071009202	1,858	O	N/A	N/A
6071009707	6,433	O	N/A	N/A
6071009708	5,488	O	N/A	CEJST DAC
6071009905	7,795	P	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071010017	16,448	O	N/A	N/A
6071010022	4,692	O	N/A	CEJST DAC
6071010024	5,354	O	N/A	N/A
6071010300	3,547	H, O, P, X	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071010700	4,011	H	N/A	CEJST DAC
6071010802	3,820	O	CalEnviroScreen 3.0 DACs Only	N/A
6071011700	1,660	P	CalEnviroScreen 4.0 Top 25 Percent	CEJST DAC
6071012101	5,860	P	N/A	N/A
6071012104	5,280	O, P	N/A	N/A
6071025100	1,343	H, X	N/A	CEJST DAC
6071980200	3,817	P	N/A	CEJST DAC

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

[67] Each shaded row is considered a DAC.

Table 70: Low-Income/Poverty Conditions – Study Area 4C

County/Census Tract	Segment(s)	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
San Bernardino County	N/A	$63,362	7.7	16.0
6071009110	P	$71,828	13.8	18.9
6071009114	P	$54,573	11.4	22.8
6071009116	P	$27,188	16.8	44.1
6071009117	P	$36,818	10.7	27.7
6071009202	O	$46,974	8.0	14.3
6071009707	O	$51,957	5.9	7.0
6071009708	O	$54,231	12.7	17.0
6071009905	P	$47,191	12.4	25.7
6071010017	O	$82,790	6.8	7.0
6071010022	O	$48,182	11.8	24.5
6071010024	O	$61,144	7.4	15.1
6071010300	H, O, P, X	$52,975	13.7	23.8
6071010700	H	$34,841	5.8	25.5
6071010802	O	$55,684	3.9	15.1
6071011700	P	$36,360	10.3	30.5
6071012101	P	$64,250	11.3	8.0
6071012104	O, P	$62,609	9.2	27.0
6071025100	H, X	$31,845	22.5	28.6
6071980200	P	N/A	N/A	N/A

Sources: U.S. Census Bureau 2019b, 2019c, 2019d

The percentage of the population below the poverty line for Census tracts within Study Area 4C ranges from 7.0 percent to 44.1 percent. The percentage of the population below the poverty line for San Bernardino County is 16.0 percent. Within Segment P, the percentage of the population below the poverty line ranges from 8.0 to 44.1 percent; Segment O ranges from 7.0 to 27.0 percent; and Segments H and X range from 23.8 to 28.6 percent. The data show that eight tracts in Segment P, four tracts in Segment O, three tracts in Segment H, and two tracts in Segment X are above the percentage of the population below the poverty line for San Bernardino County.

3.12.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within San Bernardino County that would be crossed by the segments in Study Area 4C are detailed in Table 71: Public Services – Study Area 4C.

Table 71: Public Services – Study Area 4C

County/Census Tract	Segment(s)	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
San Bernardino County	H, O, P, X	595	3	13	9	4,083

Sources: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.12.0.5 Minority/Ethnicity

Minority/ethnicity statistics of San Bernardino County and Census tracts that would be crossed by the segments in Study Area 4C are identified in Table 72: Minority/Ethnicity Percentages – Study Area 4C. The minority population percentage for Census tracts within Study Area 4C ranges from 25.0 percent to 87.3 percent. The total minority percentage for San Bernardino County is 71.5 percent. For Segments P, O, H, and X, the minority population percentages range from 37.7 percent to 87.3 percent, 25.00 percent to 67.6 percent, 31.4 percent to 50.8 percent, and 39.1 percent to 50.8 percent, respectively. The data show that six tracts in Segment P and no tracts in Segments O, H, and X have higher percentage rates than San Bernardino County.

Table 72: Minority/Ethnicity Percentages – Study Area 4C

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
San Bernardino County	N/A	61.20	8.3	0.8	7.2	0.3	17.2	53.3	71.5
6071009110	P	56.6	22.3	0.7	6.2	0.0	9.0	51.6	83.6
6071009114	P	57.1	18.6	0.2	1.7	0.0	11.3	65.1	87.3
6071009116	P	58.8	25.7	0.1	2.5	0.0	10.4	57.8	86.6
6071009117	P	72.6	16.6	0.1	0.4	0.6	7.4	60	77.6
6071009202	O	80.4	0.3	0.5	15.6	0.0	1.2	16.8	33.7
6071009707	O	83	5.9	0.2	4.7	0.0	5.8	23.3	34.3
6071009708	O	92.5	1.7	0.5	1.1	0.0	0.7	21.4	25.0
6071009905	P	58.9	17.7	1.0	4.3	0.0	10.2	57.1	81.9
6071010017	O	75	4.4	4.6	4.2	0.0	6.3	52.1	67.6
6071010022	O	85.7	1.1	2.2	1.4	0.0	5.8	51.1	55.6
6071010024	O	89.1	3.0	0.0	1.0	0.0	3.8	35.7	42.6
6071010300	H, O, P, X	83.2	3.2	2.8	6.4	0.4	3.0	26.7	39.1
6071010700	H	81.6	3.6	8.8	0.5	0.2	1.3	20.1	31.4
6071010802	O	93.5	4.2	0.0	0	0.0	2.1	21.7	25.4
6071011700	P	80.7	2.0	0.9	1.1	0.0	6.5	49.2	59.0
6071012101	P	67.8	10.6	0.0	2.1	0.0	3.5	22.3	45.7

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6071012104	O, P	87.8	6.7	1.5	0.0	0.2	2.4	29.4	37.7
6071025100	H, X	58.5	1.0	36	0.6	0.0	0.7	16.2	50.8
6071980200	P	35.8	27.5	3.1	2.0	1.4	19.9	48.0	84.3

Source: U.S. Census Bureau 2019a

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic white.

3.13 STUDY AREA 4D

3.13.0 Existing Conditions

This section characterizes existing socioeconomic conditions in terms of DAC designation, population, household income, unemployment rate, poverty/low-income level, and other demographics for areas that may be crossed by the conceptual Angeles Link routes of Segments N and Q within Study Area 4D. The corresponding cities and unincorporated areas are detailed in Table 73: Cities and Unincorporated Areas Crossed by Study Area 4D.

Table 73: Cities and Unincorporated Areas Crossed by Study Area 4D

Segment	Jurisdiction	Miles Crossed through Jurisdiction
N	City of Banning	5.2
	City of Beaumont	2.8
	City of Chino Hills	5.8
	City of Corona	5.6
	City of Moreno Valley	8.7
	City of Palm Springs	3.3
	City of Riverside	8.7
	Unincorporated Orange County	0.3
	Unincorporated Riverside County	36.7
	Unincorporated San Bernardino County	0.1
Q	City of Blythe	4.2
	City of Cathedral City	3.4
	City of Coachella	3.2
	City of Indio	3.3
	City of Palm Springs	4.3
	Unincorporated Riverside County	103.8

Existing conditions for Study Area 4D were determined using data from the U.S. Census, CalEnviroScreen, and the CEJST.

3.13.0.1 Census Tract Statistics

Table 74: Census Tract Statistics by Segment Crossed – Study Area 4D provides a summary of the socioeconomic status of the individual segments and alternative routing options of Study Area 4D. The table uses the data for Orange, Riverside, and San Bernardino counties as a baseline to compare the Census tracts. The table lists the percentage of Census tracts within the segments that have a CalEnviroScreen or CEJST DAC designation. The table also identifies the percentage of the Census tracts that would be crossed by each segment and that have a higher

percentage of the population below the poverty line, linguistically isolated households, or minority populations when compared to the averages of the counties.

Table 74: Census Tract Statistics by Segment Crossed – Study Area 4D

Segment	Percentage of Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Percentage of Census Tracts Above the County Average Percentage of Population Below Poverty/Low-Income[68]	Percentage of Census Tracts Above the County Percentage of Limited English-Speaking Households[69]	Percentage of Census Tracts Above the County Total Minority Population Percentage[70]
N	51.2	46.5	50.0	18.0
Q	54.5	45.5	54.5	58.1

Sources: OEHHA 2021; U.S. Council on Environmental Quality 2022; U.S. Census Bureau 2019a, 2019c, 2019e

3.13.0.2 Disadvantaged Communities

The CalEnviroScreen and CEJST DAC designation of each Census tract within Study Area 4D is listed in Table 75: Disadvantaged Community Designation – Study Area 4D. As indicated in the table, a total of 55 census tracts would be crossed by Study Area 4D. Of these 53 tracts, 26 are identified as DACs. Of these 26 tracts, Segment N would cross 22, and Segment Q would cross six.

3.13.0.3 Socioeconomic Conditions

Existing socioeconomic conditions of Orange, Riverside, and San Bernardino counties and Census tracts within Study Area 4D (including household income, unemployment rate, and the percentage of the population that is below the poverty line/low-income) are detailed in Table 76: Low-Income/Poverty Conditions – Study Area 4D. The median household income for Census tracts within the area of potential effect in Study Area 4D ranges from $25,778 to $144,817. The median household incomes for Orange County, Riverside County, and San Bernardino County are $90,234, $67,005, and $63,362, respectively. For Segments N and Q, the median household incomes range from $26,150 to $144,817 and $26,150 and $84,028, respectively. The data show that 22 tracts in Segment N and nine tracts in Segment Q are below the median household income for the county in which the tract is located.

[68] The Orange County, Riverside County, and San Bernardino County average percentages of the population below the poverty line/that are low-income are 10.9 percent, 13.7 percent, and 16.0 percent, respectively.
[69] The Orange County, Riverside County, and San Bernardino County percentages of limited English-speaking households are 8.4 percent, 5.2 percent, and 6.4 percent, respectively
[70] The Orange County, Riverside County, and San Bernardino County total minority population percentages are 54.9 percent, 64.7 percent, and 71.5 percent, respectively.

Table 75: Disadvantaged Community Designation – Study Area 4D[71]

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6059021822	9,543	N	N/A	N/A
6059021825	2,940	N	N/A	N/A
6065031701	2,403	N	CalEnviroScreen 4.0 Top 25	DAC
6065031702	2,322	N	N/A	N/A
6065040609	14,774	N	N/A	N/A
6065041403	4,106	N	N/A	N/A
6065041404	3,927	N	N/A	N/A
6065041405	4,478	N	N/A	N/A
6065041409	16,512	N	CalEnviroScreen 3.0 DACs Only	N/A
6065041410	2,949	N	CalEnviroScreen 4.0 Top 25	DAC
6065041411	2,697	N	CalEnviroScreen 3.0 DACs Only	N/A
6065041412	5,542	N	CalEnviroScreen 3.0 DACs Only	N/A
6065041500	3,263	N	CalEnviroScreen 4.0 Top 25	DAC
6065041600	6,511	N	CalEnviroScreen 4.0 Top 25	DAC
6065041704	3,815	N	CalEnviroScreen 4.0 Top 25	DAC
6065041813	7,165	N	CalEnviroScreen 4.0 Top 25	DAC
6065041904	5,391	N	N/A	N/A
6065042003	6,776	N	N/A	N/A
6065042004	3,722	N	N/A	N/A
6065042005	5,821	N	N/A	N/A
6065042008	8,902	N	N/A	N/A
6065042013	7,811	N	N/A	N/A
6065042014	11,624	N	N/A	N/A
6065042509	3,325	N	N/A	DAC
6065042510	5,473	N	CalEnviroScreen 4.0 Top 25	DAC
6065042511	3,357	N	CalEnviroScreen 3.0 DACs Only	DAC
6065042512	3,378	N	CalEnviroScreen 4.0 Top 25	DAC

[71] Each shaded row is considered a DAC.

Census Tract	Population	Segment Crossed	CalEnviroScreen Designation	CEJST Designation
6065042517	3,335	N	CalEnviroScreen 3.0 DACs Only	DAC
6065042518	3,497	N	CalEnviroScreen 3.0 DACs Only	DAC
6065042623	3,939	N	N/A	N/A
6065042624	4,390	N	CalEnviroScreen 3.0 DACs Only	N/A
6065043812	6,526	N	N/A	N/A
6065043813	4,912	N	CalEnviroScreen 4.0 Top 25	DAC
6065043820	4,870	N	N/A	N/A
6065043822	2,898	N	N/A	N/A
6065044000	1,734	N	CalEnviroScreen 4.0 Top 25	DAC
6065044300	4,847	N	N/A	DAC
6065044405	1,463	N	N/A	N/A
6065044505	5,781	Q	N/A	N/A
6065044520	1,424	Q	N/A	DAC
6065044521	1,332	N	N/A	DAC
6065044522	3,812	N, Q	N/A	DAC
6065044904	5,192	N, Q	N/A	N/A
6065045228	6,517	Q	N/A	N/A
6065045900	1,645	Q	N/A	DAC
6065046200	2,871	Q	CalEnviroScreen 4.0 Top 25	DAC
6065046700	4,721	N	CalEnviroScreen 4.0 Top 25	DAC
6065046900	1,631	Q	N/A	DAC
6065047000	1,675	Q	N/A	DAC
6065048700	4,872	N	N/A	N/A
6065051400	6,755	Q	N/A	N/A
6065940600	3,138	Q	N/A	N/A
6071000116	1,299	N	N/A	N/A

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

Table 76: Low-Income/Poverty Conditions – Study Area 4D

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
Orange County	N/A	$90,234	4.6	10.9
6059021822	N	$144,817	3.3	3.6
6059021825	N	$123,194	2.3	7.7
Riverside County	N/A	$67,005	7.5	13.7
6065031701	N	$54,960	7.9	16.7
6065031702	N	$75,565	4.4	7.1
6065040609	N	$111,744	2.8	5.2
6065041403	N	$77,500	7.9	4.6
6065041404	N	$84,286	5.6	5.8
6065041405	N	$71,928	2.8	8.6
6065041409	N	$117,292	4.3	5.3
6065041410	N	$37,548	6	34.2
6065041411	N	$48,819	10.1	11.3
6065041412	N	$64,054	7	13.1
6065041500	N	$60,735	7.2	16.4
6065041600	N	$45,776	3	19.4
6065041704	N	$46,417	8	18.2
6065041813	N	$46,018	8.7	18.2
6065041904	N	$107,880	6.1	4.7
6065042003	N	$103,690	4.4	5.2
6065042004	N	$107,321	1.4	5.3
6065042005	N	$125,417	4.3	7.7
6065042008	N	$110,605	2.1	4.1
6065042013	N	$121,132	6.1	5.1
6065042014	N	$133,237	3.4	8.5
6065042509	N	$49,219	13.8	12.6
6065042510	N	$56,713	14	31.1
6065042511	N	$46,173	14.6	17.6
6065042512	N	$51,875	8.2	17.4

County/Census Tract	Segment	Median Household Income	Unemployment Rate	Percentage of Population Below Poverty
6065042517	N	$56,130	10.5	17.5
6065042518	N	$60,655	12.1	11.7
6065042623	N	$88,579	5.8	3.3
6065042624	N	$95,926	4.3	10
6065043812	N	$54,125	13	6.2
6065043813	N	$44,967	6.9	24.4
6065043820	N	$83,712	2.3	6.9
6065043822	N	$98,646	7.1	7.6
6065044000	N	$43,333	9.8	23.8
6065044300	N	$42,896	8.4	18.9
6065044405	N	$82,448	0	12.6
6065044505	Q	$52,240	6.7	13.1
6065044520	Q	$46,750	4.5	14.4
6065044521	N	$38,514	10.5	30.5
6065044522	N, Q	$26,150	5.8	26.8
6065044904	N, Q	$57,401	7.4	10.2
6065045228	Q	$81,348	4	5.3
6065045900	Q	$53,385	5.8	12.2
6065046200	Q	$25,778	17.7	37.3
6065046700	N	$43,556	8.9	30.2
6065046900	Q	$40,887	24.2	24.7
6065047000	Q	$41,307	11.6	23.3
6065048700	N	$83,125	9.2	8.3
6065051400	Q	$60,221	0	7
6065940600	Q	$84,028	5.8	6
San Bernardino	N/A	$63,362	7.7	16.0
6071000116	N	$110,927	4.9	4.7

Sources: U.S. Census Bureau 2019b, 2019c, 2019d

The unemployment rate for Census tracts within Study Area 4D ranges from 0.0 percent to 24.2 percent. The median unemployment rates for Orange County, Riverside County, and San Bernardino County are 4.6 percent, 7.5 percent, and 7.7 percent, respectively. For Segments N and Q, the unemployment rates range from 0 percent to 14.6 percent and from 0.0 percent to 24.2 percent, respectively. The data show that 15 tracts in Segment N and three tracts in Segment Q have higher unemployment rates than the county in which the tract is located.

The percentage of the population below the poverty line for Census tracts within Study Area 4D ranges from 3.3 percent to 37.3 percent. The percentage of the population below the poverty line for Orange County, Riverside County, and San Bernardino County are 10.9 percent, 13.7 percent, and 16.0 percent, respectively. Within Segment N and Segment Q, the percentages of the population below the poverty line range from 3.3 percent to 34.2 percent and 5.3 percent to 37.3 percent, respectively. The data show that 15 tracts in Segment N and five tracts in Segment Q have a higher percentage of populations below the poverty line for the county in which the tract is located.

3.13.0.4 Public Services

The number of public schools, sheriff departments, police departments, fire and rescue departments, and hospital beds within Orange County, Riverside County, and San Bernardino County that would be crossed by the segments in Study Area 4D are identified in Table 77: Public Services – Study Area 4D.

Table 77: Public Services – Study Area 4D

County/ Census Tract	Segment	Number of Public Schools	Number of Sheriff's Departments	Number of Police Departments	Number of Fire and Rescue Departments	Number of Hospital Beds
Orange County	N	647	1	24	14	6,098
Riverside County	N, Q	544	4	19	11	3,480
San Bernardino County	N	595	3	13	9	4,083

Source: American Hospital Directory 2023, California Department of Education 2023, USACOPS 2023, USA Fire and Rescue 2023

3.13.0.5 Minority/Ethnicity

Minority/ethnicity statistics of Orange County, Riverside County, and San Bernardino County and the Census tracts that would be crossed by Segments N and Q in Study Area 4D are identified in Table 78: Minority/Ethnicity Percentages – Study Area 4D. The minority population percentage for the Census tracts within Study Area 4D ranges from 10.1 percent to 97.6 percent. The total minority population percentages for Orange County, Riverside County, and San Bernardino County are 59.4 percent, 64.7 percent, and 71.5 percent, respectively. For Segments N and Q, the minority population percentages range from 19.7 percent to 97.6 percent and from 10.1 percent to 84.8 percent, respectively. The data show that 25 tracts in Segment N and two tracts in Segment Q have a higher percentage rate than the minority population percentage for the county in which the tract is located.

Table 78: Minority/Ethnicity Percentages – Study Area 4D

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
Orange County	N/A	61.	1.8	0.5	20.5	0.3	11.9	34.1	59.4
6059021822	N	55.7	1.4	0	36.2	0.1	2.2	10.5	50.3
6059021825	N	69.3	1.7	0	23.7	0	1.5	13.7	41.0
Riverside County	N/A	59.9	6.5	0.8	6.5	0.3	21.5	48.9	64.7
6065031701	N	45.2	5.5	1.6	11.7	0	34.5	60.2	78.3
6065031702	N	62.9	2.2	0	7	0.5	23.5	52.1	62.1
6065040609	N	40.6	7.5	0	35.5	0.1	9	30.2	76.9
6065041403	N	56.3	6	0.3	16.1	0	16.6	44.5	69.4
6065041404	N	51.9	6.4	0.3	7.3	0.4	24.8	55.9	74.9
6065041405	N	56.7	6.9	1.7	6.5	0.5	24.9	56.1	73.5
6065041409	N	64.1	6.5	1.4	17.5	0.1	8.6	33.3	58.4
6065041410	N	57.1	0.3	2.3	0.3	0	38.1	95.7	97.6
6065041411	N	71.6	2.2	0.4	2.7	0	19.1	74.4	80.1
6065041412	N	60.7	6.6	1.1	9.8	0	19.6	58.9	75
6065041500	N	63.7	6.1	1.8	4.9	0.9	21.4	66	79.7
6065041600	N	53.1	1.7	0	2.2	0.4	40.3	86.8	92.5
6065041704	N	50	1.1	0	3.7	0	41.4	86.5	91.7

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6065041813	N	62.7	4.1	0.1	4.3	0	25.3	63.7	71.6
6065041904	N	64.8	1.3	0.7	8.7	0.6	22.4	48.6	59
6065042003	N	73.2	6.3	0.2	10.1	0.1	4.9	36.1	55.1
6065042004	N	76.7	5.6	0	1	0.7	14.2	36.2	45.1
6065042005	N	59.7	6.1	0	14.4	0.3	14.8	32.8	57.3
6065042008	N	64.7	5.6	0.4	5.7	0	19.3	43.7	57.3
6065042013	N	60.2	6.1	0	18.2	0.6	5.7	16.8	48
6065042014	N	63.1	11	0.2	9.3	0.9	10.8	35.4	59.7
6065042509	N	28.5	8	0.2	1.9	0	59.5	74.7	85.7
6065042510	N	28.6	12.9	0.1	5.7	1.5	49	71	92.9
6065042511	N	37.5	12.3	0	2.3	0	44.5	73.5	89.2
6065042512	N	27.4	16.2	0	3.8	0.3	50.4	73	94.1
6065042517	N	39.9	13.4	0	2.8	0	39.9	70.3	86.4
6065042518	N	26.1	20	2.1	4.6	0	43.7	61.7	87.6
6065042623	N	35.7	29.5	0	10.9	0	17.4	37.4	81.7
6065042624	N	30.1	14.9	1.6	7.5	1.8	39.5	50.7	79.3
6065043812	N	88.1	2.2	3	4.4	0	0.5	12.2	19.7
6065043813	N	65.2	1.8	21.3	2.3	0	5.7	36.6	62.1
6065043820	N	58	14.1	0	13.5	0	10.1	34	63.9

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
6065043822	N	69.1	0.8	0	4.6	0	23.2	52.6	61.5
6065044000	N	58.1	7.2	3.6	1.3	0	22.6	64.2	77.4
6065044300	N	63.2	11.3	2.4	4.3	0	15.7	56.8	75.7
6065044405	N	95.4	0.6	0.8	2.5	0	0.3	20	23.8
6065044505	Q	77	0.2	1.2	0.5	0	20.5	52.9	53.8
6065044520	Q	77.7	1.1	2.1	3.9	0	15.2	44.6	51.8
6065044521	N	69.4	5.9	2.1	3.7	0	12.1	45.8	57.7
6065044522	N, Q	84.4	3.5	0	1.9	0	6.8	45.9	54.1
6065044904	N, Q	67.4	6	5	8.2	0.1	10.3	44	65.6
6065045228	Q	79.9	0.5	0.4	2.4	0	15.3	38.7	42.3
6065045900	Q	52.9	5.7	0.1	0.9	0	33.5	49.4	58.6
6065046200	Q	34.4	14.6	0.3	0	0	40.4	67.6	84.8
6065046700	N	28.7	9.5	1	1.5	0	56.7	72.5	83.2
6065046900	Q	46.9	1.8	0	0.5	0	47.6	62	63.9
6065047000	Q	57.4	4.9	0.4	3.7	0	23.4	41.2	51.5
6065048700	N	28.3	20.5	0	14.4	0	31.3	50.2	90.3
6065051400	Q	93.9	3.6	0	0.3	0	0	4	10.1
6065940600	Q	84.6	1.6	1	5.2	0	3.2	12.2	23.1

County/ Census Tract	Segment	White (Percent)	African American (Percent)	Native American and Alaskan Native (Percent)	Asian (Percent)	Native Hawaiian and Pacific Islander (Percent)	Other Race (Percent)	Hispanic or Latino Origin (Percent)	Total Minority (Percent)[a]
San Bernardino County	N/A	61.20	8.3	0.8	7.2	0.3	17.2	53.3	71.5
6071000116	N	44.9	6.8	0.1	40.2	0.3	4	19.3	68.7

Source: U.S. Census Bureau 2019a

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic white.

4 – IMPACT DISCUSSION

As stated previously, at this stage in the Angeles Link feasibility analysis, the 1,300 miles of conceptual pipeline routes are directional in nature. The conceptual routes do not illustrate the specific routes where Angeles Link may be constructed, as specific routes and street-level alignments will be further studied and refined in future phases of Angeles Link. In a future phase when Angeles Link is well-defined, a detailed evaluation would be conducted on the potential impacts of construction and operation of linear facilities, such as transmission pipelines, on ESJ communities and/or DACs. This impact evaluation, would consider the duration and significance of any potential impacts and may consider impacts according to the following descriptions: [72]

- **Temporary impacts** occur during construction, with resources returning to pre-construction conditions almost immediately.
- **Short-term impacts** may continue for up to three years following construction.
- **Long-term impacts** would require more than three years to recover but would eventually return to pre-construction conditions.
- **Permanent impacts** result from activities that modify resources to the extent that they do not return to pre-construction conditions during the project's life, such as with the construction of aboveground facilities.

Potential impacts that could result in substantial adverse changes in the physical environment must be considered. Although pipeline construction might take several months or years, activities often occur over shorter timeframes, as pipeline construction is linear and often completed in short segments. These schedules would be communicated well in advance to affected property owners and communities. Generally, because the pipeline would be buried, resource impacts due to construction are typically considered temporary, intermittent, and short-term. Long-term and permanent impacts would be associated with O&M of the pipeline right-of-way. Implementation of avoidance, minimization, and/or mitigation measures during construction and operation of the pipelines would further minimize the severity of such impacts on ESJ communities and/or DACs.

[72] These significance criteria definitions are based on the Federal Energy Regulatory Commission's (FERC's) issued National Environmental Policy Act (NEPA) environmental documents, based on the agency's more than 40 years of experience with construction and operation of interstate transmission natural gas pipelines and assessing potential impacts. Other criteria to evaluate potential impacts to ESJ and/or DAC communities may be applied by agencies conducting further review of Angeles Link in future phases

4.0.0 Minimization Measures

As described previously, the pipeline segments in the study area corridor are preliminary in nature and the location, appurtenances, construction, and O&M logistics of the pipeline system have not been determined; therefore, potential disproportionate impacts to ESJ communities and/or DACs cannot be accurately quantified at this time.

The Angeles Link pipeline system would be constructed and operated in accordance with the applicable federal, state, and local laws and regulations. However, to further minimize overall impacts on ESJ communities and DACs, certain site-specific measures or use of special equipment and/or specialized construction techniques could be employed that go beyond what is required by law. These measures or techniques could include the following:

- Engaging ESJ and other DAC community leaders in future Angeles Link Phase 2 meetings and other aspects of the engagement process to understand concerns related to construction and operation and the minimization measures the communities would prefer. Routing could potentially be adjusted to avoid and/or minimize site-specific impacts based on community feedback.

- Adjusting/rerouting the pipeline during environmental and engineering surveys to avoid known soils in legacy pollution areas, solid waste, hazardous waste sites, known potable water, private water wells, and drinking water supplies, thus minimizing and/or avoiding impacts, especially in areas near ESJ communities and DACs.

- Constructing during daytime hours, minimizing impacts on noise to area residents and businesses, including ESJ communities and DACs.

- Minimizing traffic delays during construction by keeping one lane open for traffic and using traffic flaggers to support public safety.

- Utilizing specialty pipeline techniques during construction in populated urban areas, including, but not limited to, trenchless technology (e.g., horizontal directional drill, horizontal bore, and stovepipe method). These methods avoid use of traditional trenching, which can leave trenches open for longer periods of time, thus minimizing the overall footprint of disturbance. In addition, certain structures or landscaping plants could be avoided using these methods when practicable through routing or narrowing construction limits.

- Implementing Residential Construction Plans, which would be prepared on a site-specific basis to address concerns related to construction activities. These plans would be coordinated between SoCalGas and affected landowners on an individual basis.

- Reducing permanent visual impacts through restoration and revegetation efforts, which could include site-specific aesthetic plans for certain affected areas, following the completion of construction.

- Holding workshops with ESJ communities and DACs during the early design phases of Angeles Link so meaningful input can be incorporated into the engineering design.

- Providing a designated DAC liaison to assist in addressing concerns during construction.
- Developing and implementing a pedestrian and bicycle transportation plan for construction.
- Finding ways to reduce fuel consumption during construction, such as bussing construction workers to and from construction sites.
- Meaningfully reducing waste generation during construction.
- Using Tier 4 equipment to reduce air emissions during construction.

In summary, SoCalGas is committed to meaningfully engaging with ESJ communities and DACs, as well as other stakeholders, during all phases of Angeles Link and seeks to identify and address any concerns that are raised by these groups regarding construction and operation of Angeles Link.

In addition, field studies—including environmental and engineering field surveys—as well as agency consultations will assist in determining the potential impact that Angeles Link could have on ESJ communities and DACs; these will be included in future phases.

Generally, the pipeline industry standard best management practices (BMPs) and site-specific construction methods or technology would be implemented to minimize overall impacts on the environment; safety measures for Angeles Link are discussed in the Plan for Applicable Safety Requirements (SoCalGas 2024). In general, implementation of BMPs, though not specifically targeted at mitigating impacts on ESJ communities and DACs, would reduce overall impacts of the pipeline system on ESJ communities and DACs.

SoCalGas remains dedicated to reducing overall impacts through industry-standard best management practices, with a focus on avoiding and mitigating impacts, especially on ESJ communities and DACs. As the pipeline routes are further refined based on future analysis in Phase 2, SoCalGas will look for opportunities to further minimize and mitigate impacts on ESJ communities and DACs.

5 – CONCLUSIONS

The location, appurtenances, construction, and O&M logistics of the pipeline system have not been determined at this feasibility stage of Angeles Link. Therefore, impacts to ESJ communities and/or DACs cannot be accurately quantified. However, based on the preliminary routes for these segments and typical pipeline designs, screening tools and review of U.S. Census data have been utilized to identify potential ESJ communities, including low-income, poverty and minority communities, and other DACs for gathering information as a preliminary start in the identification of DACs for future planning.

As identified in this ESJ Screening, the conceptual pipeline routes identified at this feasibility stage of Angeles Link would cross CalEnviroScreen or CEJST DAC designations as. A summary table for each of the 13 study areas and the number of Census tracts with a DAC designation and DAC percentages for each study area is included Table 79: Disadvantaged Community Designations. In addition, all conceptual pipeline routes and the associated Census tracts designated as DACs are depicted in Attachment A: Angeles Link Phase 1 Community Maps.

Table 79: Disadvantaged Community Designations

Study Area	Census Tracts with a CalEnviroScreen or CEJST DAC Designation	Total Census Tracts	DAC Percentage Total
1A	6	6	100
1B	10	32	31
2	88	131	67
3A	27	66	41
3B	19	34	56
3C	15	28	53
3D	12	20	60
3E	6	23	26
3F	116	130	89
4A	6	6	100
4B	11	13	84
4C	13	19	68
4D	27	53	50

Sources: OEHHA 2021, U.S. Council on Environmental Quality 2022

A total of 563 Census tracts would be crossed by the conceptual pipeline routes, some combination of which may comprise Angeles Link. Of these 563 Census tracts, 356 are identified as CalEnviroScreen or CEJST DAC designations. Of these 356 Census tracts, Study Area 3F would cross the most CalEnviroScreen or CEJST DAC designations, with 116 tracts,

which is 89 percent of the entire study area; while Study Areas 1 A and 4A would cross the fewest number of Census tracts with CalEnviroScreen or CEJST DAC designations.

In light of this ESJ Screening and stakeholder feedback, the Routing Study being conducted in Phase 1 was revised to include a route variation for future consideration that reduces traversing through ESJ communities and DACs. A full ESJ Screening to identify DACs and collect additional demographic and socioeconomic information for the communities along this route variation was not captured in this report. In Phase 2, SoCalGas intends to perform refined ESJ Screening in parallel with a system route options analysis to help identify a preferred system route. Stakeholder and community input would be solicited during Phase 2 analysis and would be factored into route selection.

Angeles Link's ESJ Community Engagement Plan provides a list of community engagement practices that could be implemented during Phase 2 of Angeles Link, pending CPUC authorization.

SoCalGas recognizes that active engagement is beneficial because it can help identify and address potential impacts of Angeles Link on ESJ communities and DACs. Engagement activities conducted in coordination with organizations (such as those involved currently in the Community Based Organizations Stakeholder Group [CBOSG] and Planning Advisory Group [PAG] members) are crucial in addressing a broad range of diverse community interests that would be affected by Angeles Link, including ESJ community groups, ratepayer advocacy groups, union organizations, state agencies, and others.

SoCalGas commits to conducting quarterly Angeles Link meetings with CBOSG and PAG members, as well as adding theme-based workshops on an as-needed basis throughout this process. SoCalGas will continue to identify and invite participation from other community-based organizations that may potentially be impacted by Angeles Link, including DACs and environmental social justice groups, as they are identified.

Additional environmental studies—including surveys, agency consultation, and public engagement—are required to assist in determining Angeles Link's potential construction and operational impact on ESJ communities and DACs.

The clean renewable hydrogen that Angeles Link would provide in the future may lead to meaningful emissions reductions and associated health benefits in ESJ communities and DACs. SoCalGas emphasizes that the ESJ Screening will guide the identification of stakeholders and communities to engage in Phase 2 of Angeles Link. This process will enable SoCalGas to prioritize resource allocation and plan additional outreach and engagement efforts. As a result, SoCalGas can tailor outreach strategies, which may involve targeted communication, increased community meetings, and collaboration to address specific needs and concerns.

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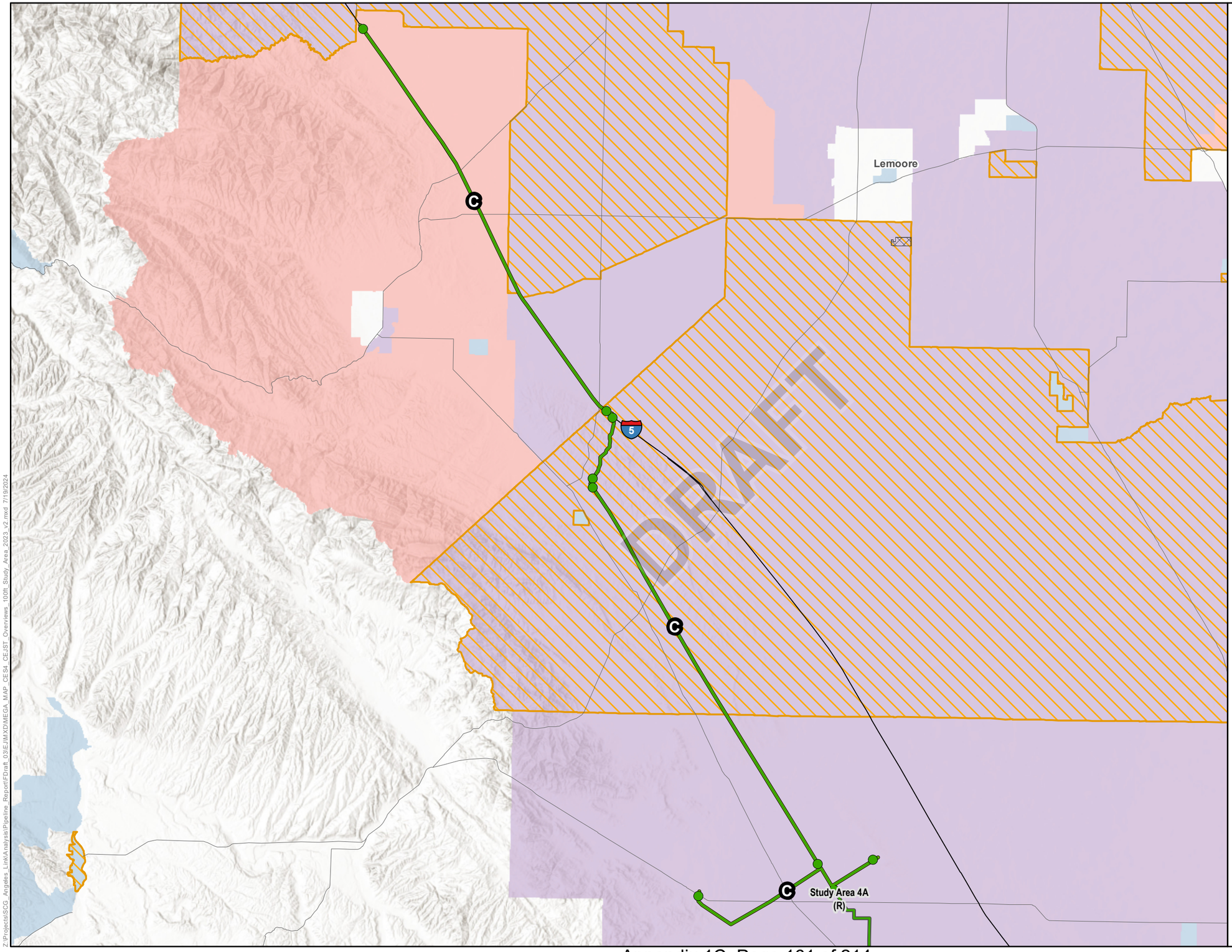
ATTACHMENT A: ANGELES LINK PHASE 1 COMMUNITY MAPS

Attachment A: Angeles Link Phase 1 Community Maps

Study Area 1A



- Segement Start/End Point
- Segment^
- Adjacent/Other Study Area Visible
- Route Variation 1

- CalEnviroScreen 4.0 (CES4) SB 535 DAC*
- Climate and Economic Justice Screening Tool (CEJST) DAC**
- CES4 and CEJST Overlapping DACs
- Federally Recognized Tribal Land
- Opportunity Zone

- Interstate
- State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas. INSIGNIA ENVIRONMENTAL

1:387,000

0 6.5 13 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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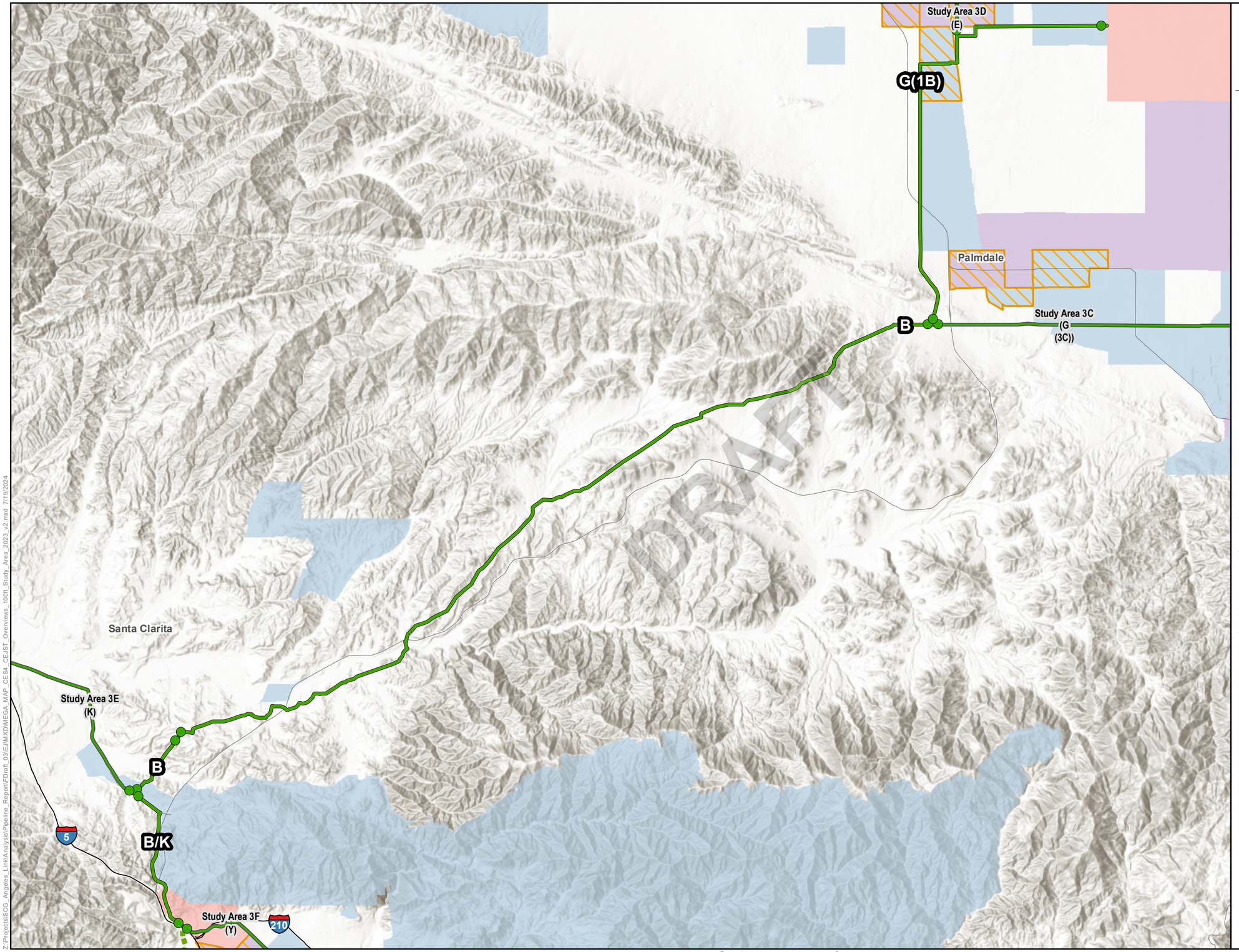


Attachment A: Angeles Link Phase 1 Community Maps

Study Area 1B

- Segement Start/End Point
- Segment^
- Adjacent/Other Study Area Visible
- Route Variation 1

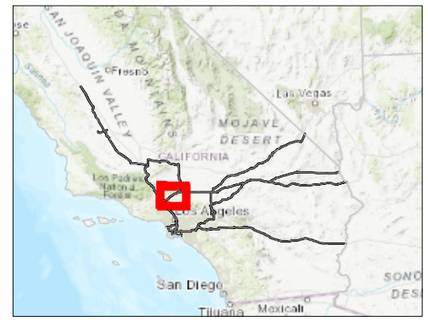
- CalEnviroScreen 4.0 (CES4) SB 535 DAC*
- Climate and Economic Justice Screening Tool (CEJST) DAC**
- CES4 and CEJST Overlapping DACs
- Opportunity Zone

- Interstate
- State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.



SoCalGas. INSIGNIA ENVIRONMENTAL

1:162,000

0 2.5 5 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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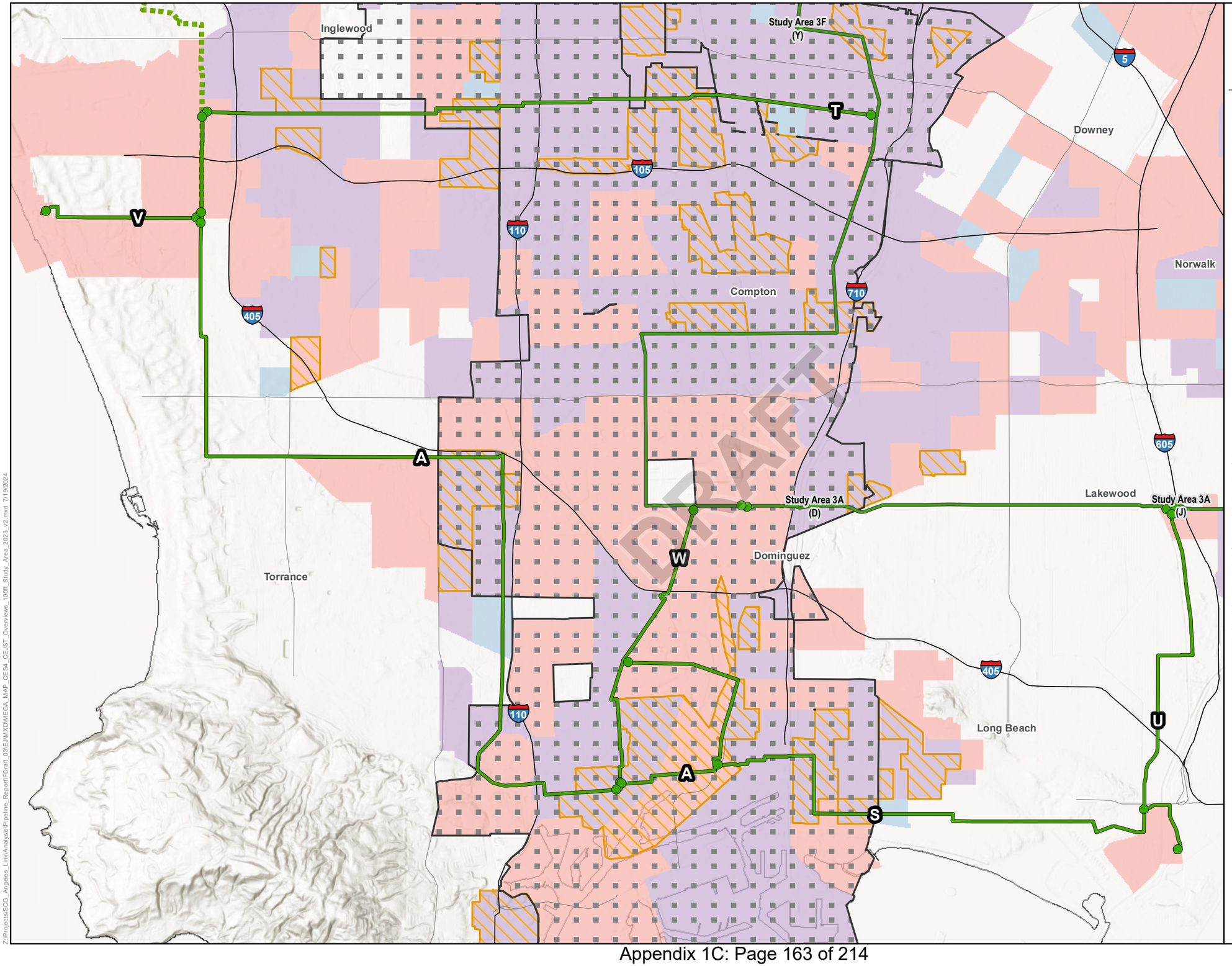

Attachment A: Angeles Link Phase 1 Community Maps

Study Area 2

- Segement Start/End Point
- Segment^
- Adjacent/Other Study Area Visible
- Route Variation 1

- CalEnviroScreen 4.0 (CES4) SB 535 DAC*
- Climate and Economic Justice Screening Tool (CEJST) DAC**
- CES4 and CEJST Overlapping DACs
- AB 617 CAPP Community Boundaries
- Opportunity Zone

- Interstate
- State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas. INSIGNIA ENVIRONMENTAL

1:100,000
0 1.5 3 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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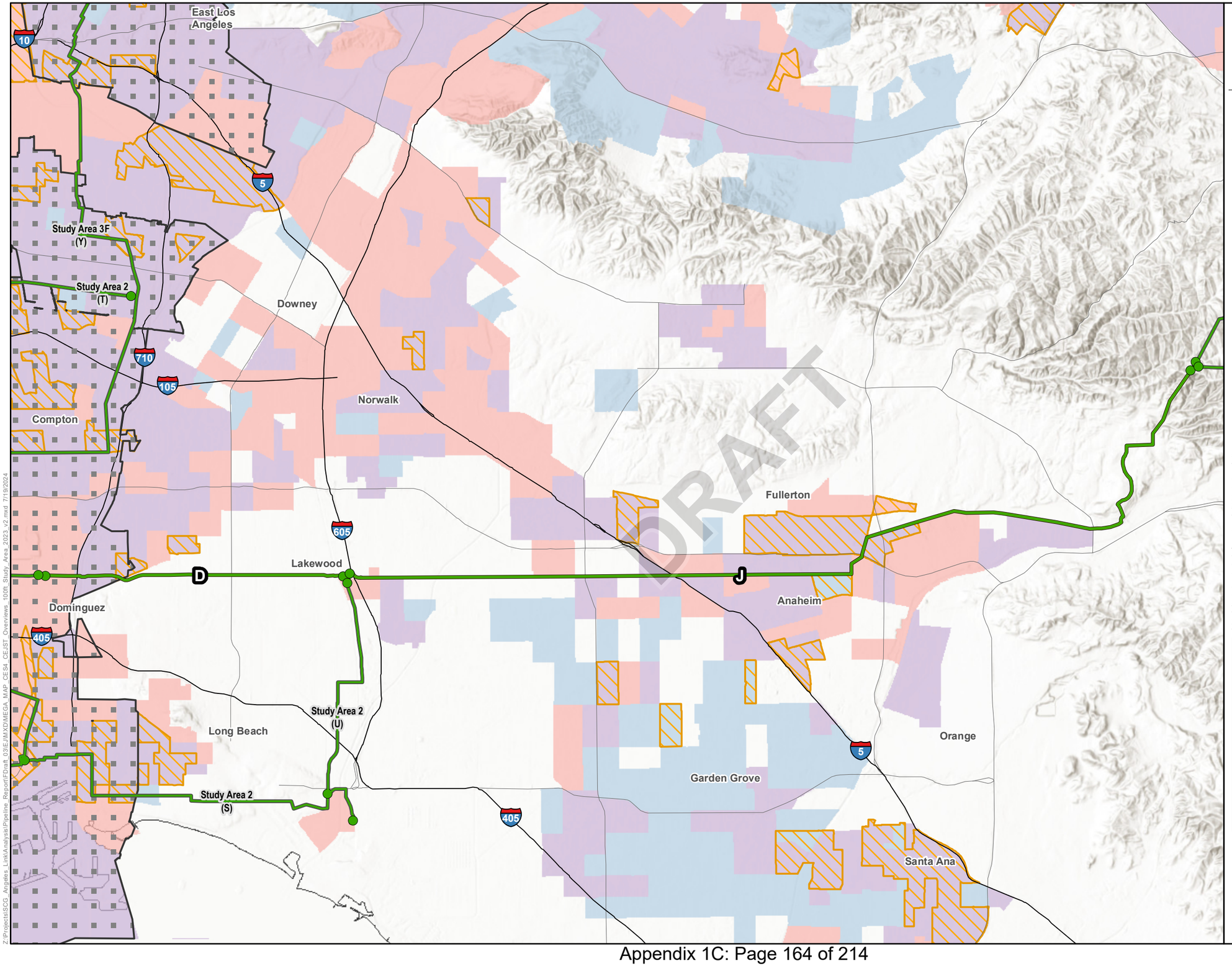
Attachment A: Angeles Link Phase 1 Community Maps

Study Area 3A



Segement Start/End Point
Segment^
Adjacent/Other Study Area Visible
Route Variation 1

CalEnviroScreen 4.0 (CES4) SB 535 DAC*
Climate and Economic Justice Screening Tool (CEJST) DAC**
CES4 and CEJST Overlapping DACs
AB 617 CAPP Community Boundaries
Opportunity Zone

Interstate
State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas.
INSIGNIA ENVIRONMENTAL

1:140,000
0 2 4 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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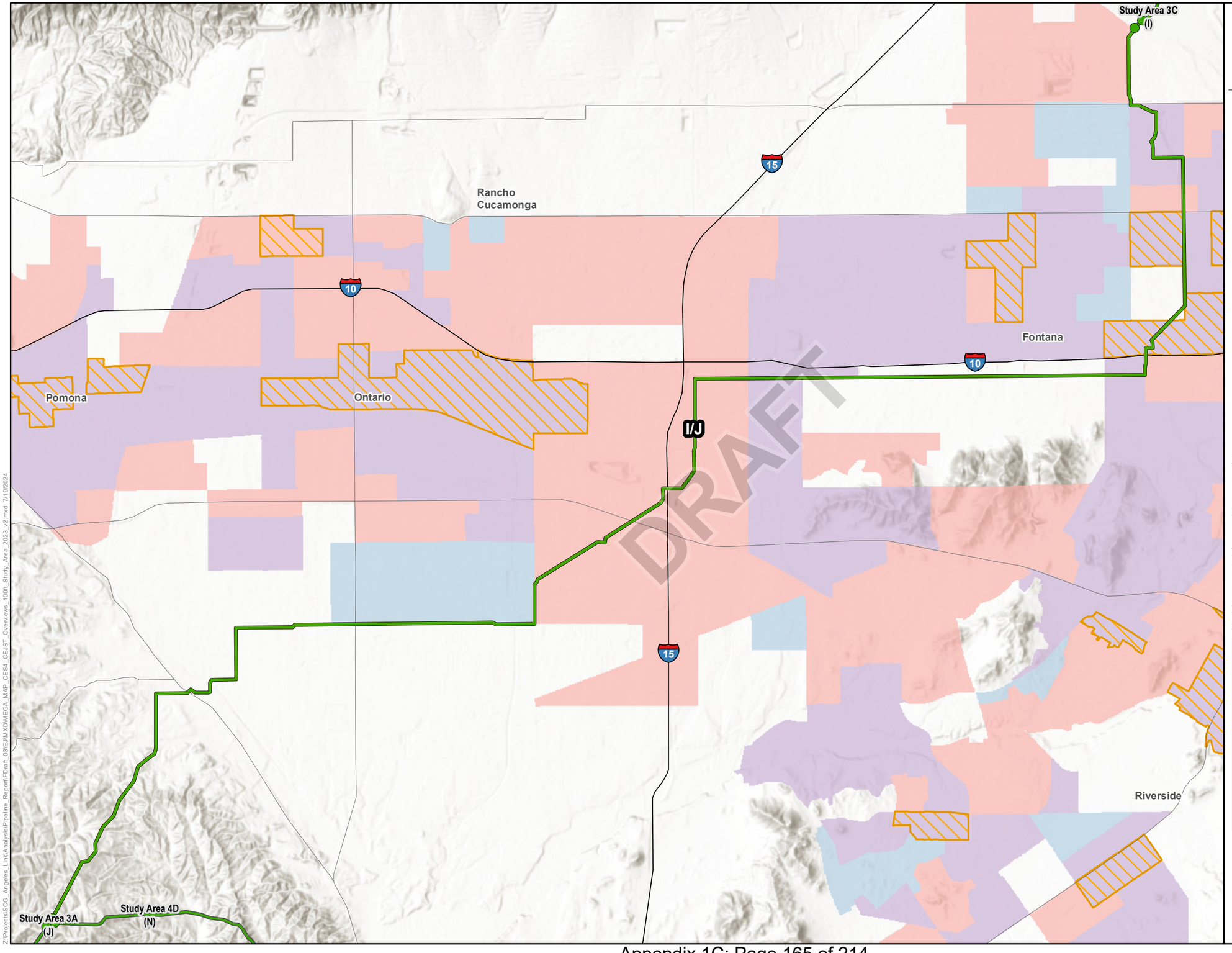

Attachment A: Angeles Link Phase 1 Community Maps

Study Area 3B

- Segement Start/End Point
- Segment^
- Adjacent/Other Study Area Visible
- Route Variation 1

- CalEnviroScreen 4.0 (CES4) SB 535 DAC*
- Climate and Economic Justice Screening Tool (CEJST) DAC**
- CES4 and CEJST Overlapping DACs
- Opportunity Zone

- Interstate
- State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
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**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas. INSIGNIA ENVIRONMENTAL

1:110,000

0 1.5 3 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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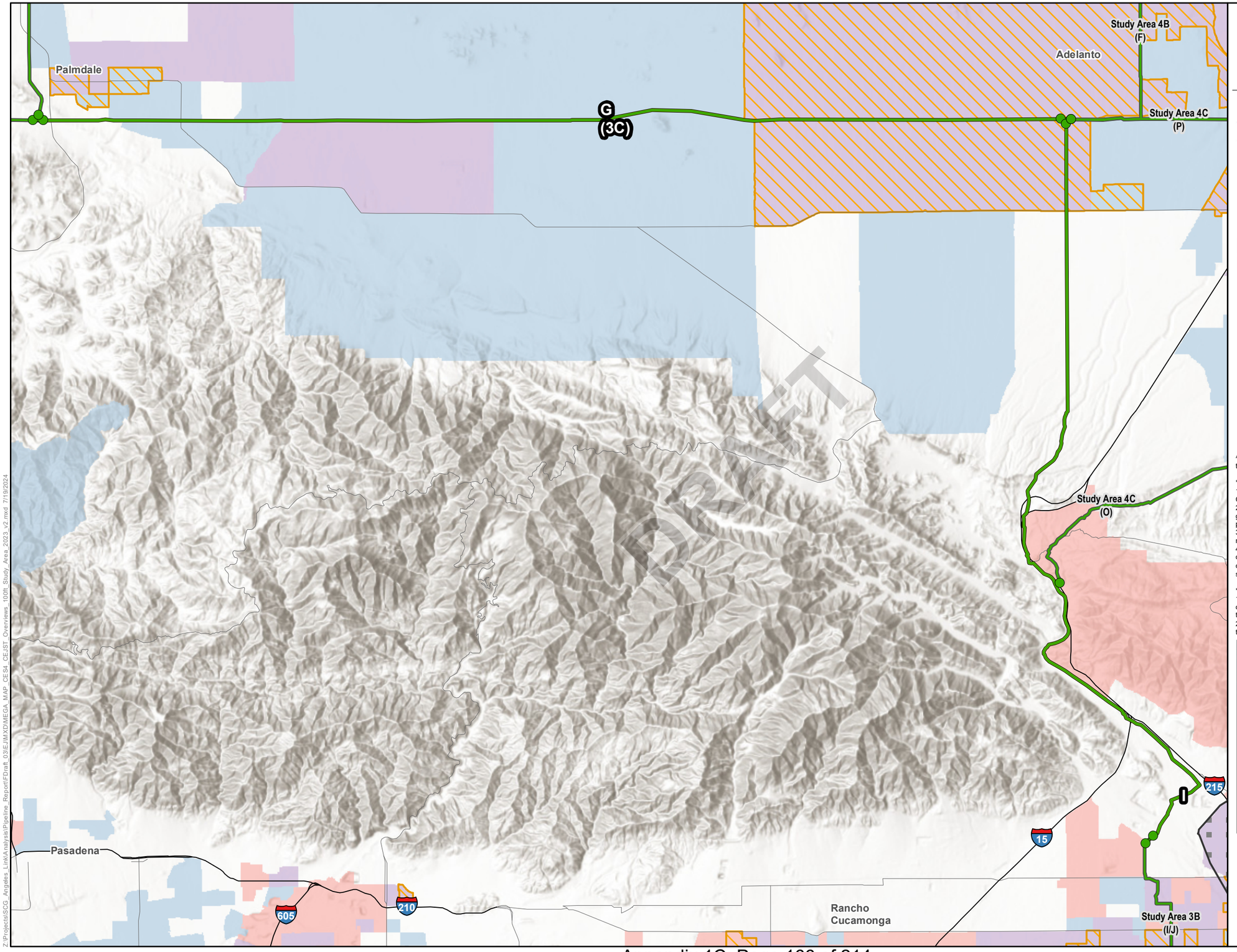

Attachment A: Angeles Link Phase 1 Community Maps

Study Area 3C

- Segement Start/End Point
- Segment^
- Adjacent/Other Study Area Visible
- Route Variation 1

- CalEnviroScreen 4.0 (CES4) SB 535 DAC*
- Climate and Economic Justice Screening Tool (CEJST) DAC**
- CES4 and CEJST Overlapping DACs
- AB 617 CAPP Community Boundaries
- Opportunity Zone

- Interstate
- State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
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4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas.

INSIGNIA ENVIRONMENTAL

1:229,000

0 3.5 7 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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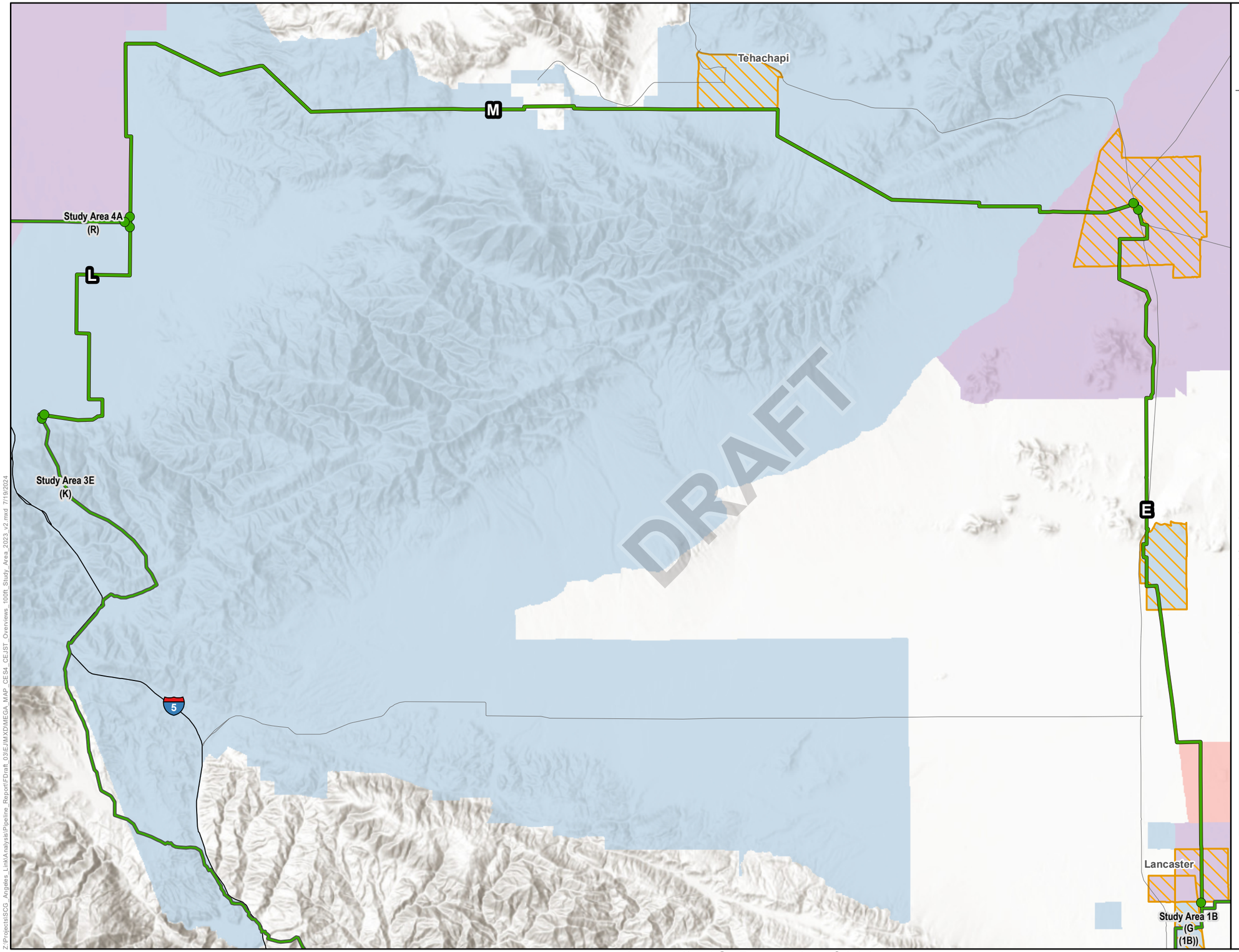

Attachment A: Angeles Link Phase 1 Community Maps

Study Area 3D

- Segement Start/End Point
- Segment^
- Adjacent/Other Study Area Visible
- Route Variation 1

- CalEnviroScreen 4.0 (CES4) SB 535 DAC*
- Climate and Economic Justice Screening Tool (CEJST) DAC**
- CES4 and CEJST Overlapping DACs
- Opportunity Zone

- Interstate
- State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas.

INSIGNIA ENVIRONMENTAL

1:227,000

0 3.5 7 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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Attachment A: Angeles Link Phase 1 Community Maps

Study Area 3E

Segement Start/End Point
Segment^
Adjacent/Other Study Area Visible
Route Variation 1

Climate and Economic Justice Screening Tool (CEJST) DAC**
CES4 and CEJST Overlapping DACs
Opportunity Zone

Interstate
State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas.
INSIGNIA ENVIRONMENTAL

1:261,000
0 4 8 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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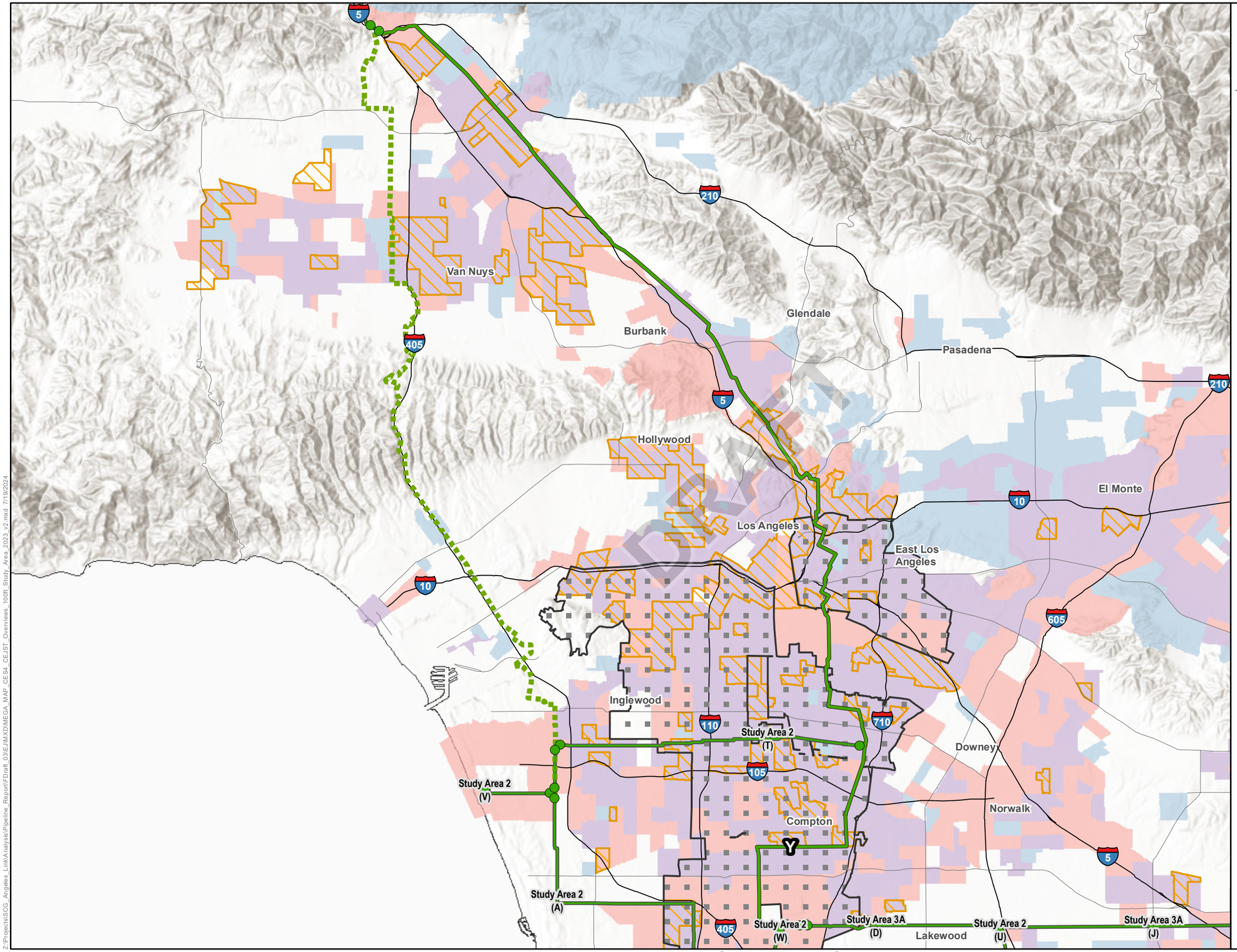
Attachment A: Angeles Link Phase 1 Community Maps

Study Area 3F



Segement Start/End Point
Segment^
Adjacent/Other Study Area Visible
Route Variation 1

CalEnviroScreen 4.0 (CES4) SB 535 DAC*
Climate and Economic Justice Screening Tool (CEJST) DAC**
CES4 and CEJST Overlapping DACs
AB 617 CAPP Community Boundaries
Opportunity Zone

Interstate
State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
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**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
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2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas.
INSIGNIA ENVIRONMENTAL

1:219,000
0 3.5 7 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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Attachment A: Angeles Link Phase 1 Community Maps

Study Area 4A

Study Area 1A
(C)

Bakersfield

Study Area 3D
(M)

5

DRAFT

Segement Start/End Point
Segment^
Adjacent/Other Study Area Visible
Route Variation 1

CalEnviroScreen 4.0 (CES4) SB 535 DAC*
Climate and Economic Justice Screening Tool (CEJST) DAC**
CES4 and CEJST Overlapping DACs
AB 617 CAPP Community Boundaries
Opportunity Zone

Interstate
State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
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**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas.
INSIGNIA ENVIRONMENTAL

1:282,000
0 4.5 9 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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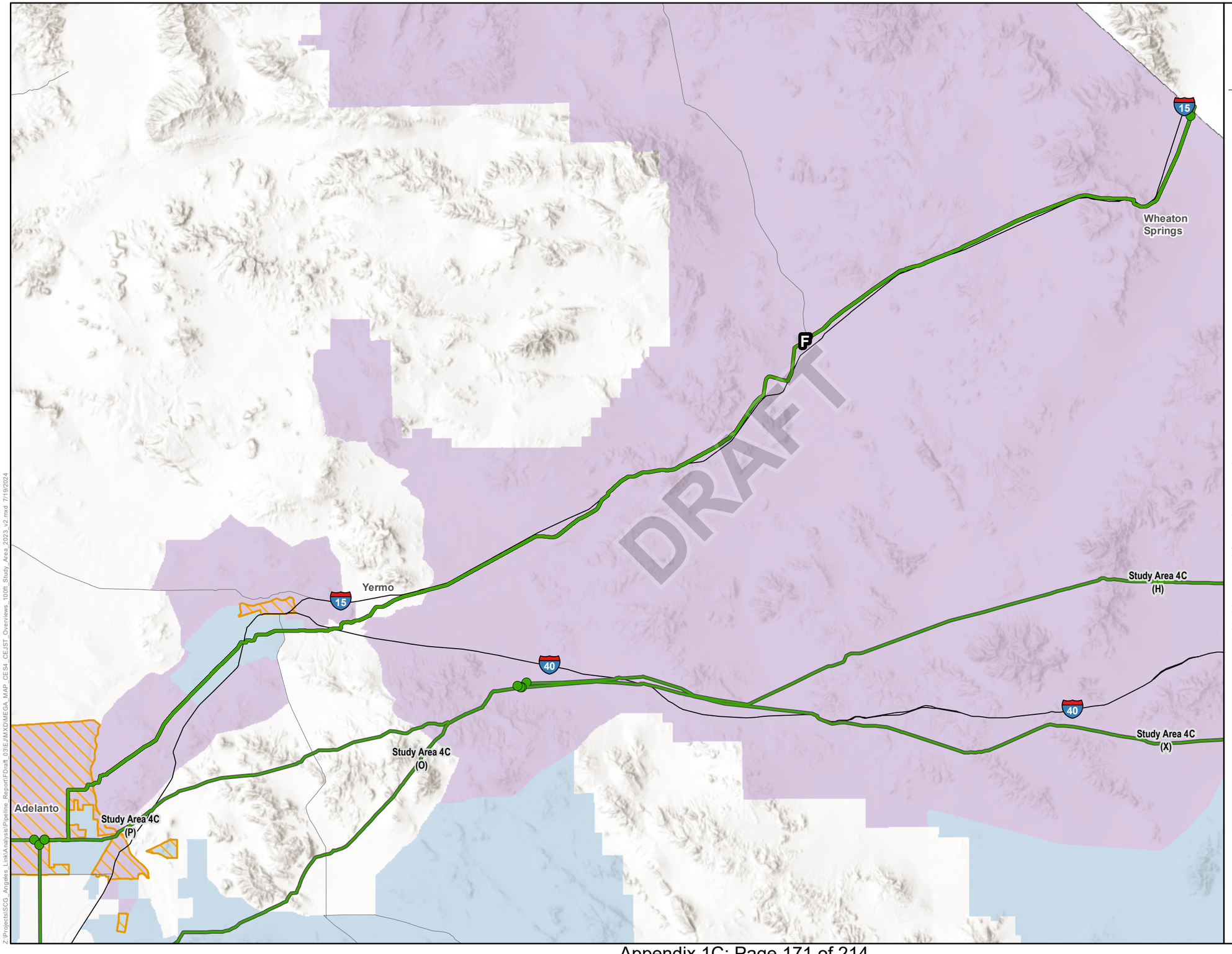

Attachment A: Angeles Link Phase 1 Community Maps

Study Area 4B

- Segement Start/End Point
- Segment^
- Adjacent/Other Study Area Visible
- Route Variation 1
- Climate and Economic Justice Screening Tool (CEJST) DAC**
- CES4 and CEJST Overlapping DACs
- Opportunity Zone
- Interstate
- State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas. INSIGNIA ENVIRONMENTAL

1:601,000

0 10 20 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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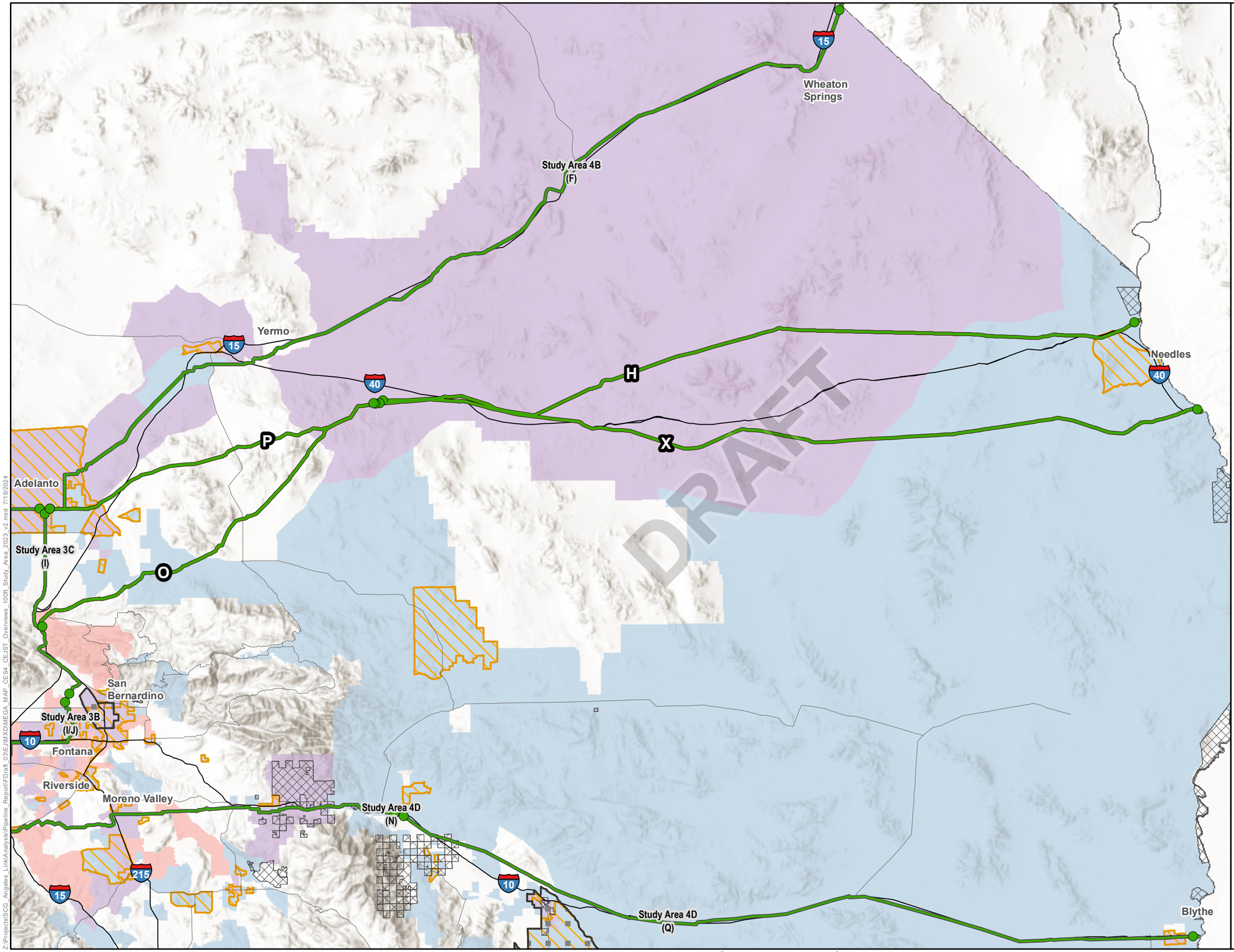
Attachment A: Angeles Link Phase 1 Community Maps

Study Area 4C



Segement Start/End Point
Segment^
Adjacent/Other Study Area Visible
Route Variation 1

CalEnviroScreen 4.0 (CES4) SB 535 DAC*
Climate and Economic Justice Screening Tool (CEJST) DAC**
CES4 and CEJST Overlapping DACs
Federally Recognized Tribal Land
AB 617 CAPP Community Boundaries
Opportunity Zone

Interstate
State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas.
INSIGNIA ENVIRONMENTAL

1:875,000
0 10 20 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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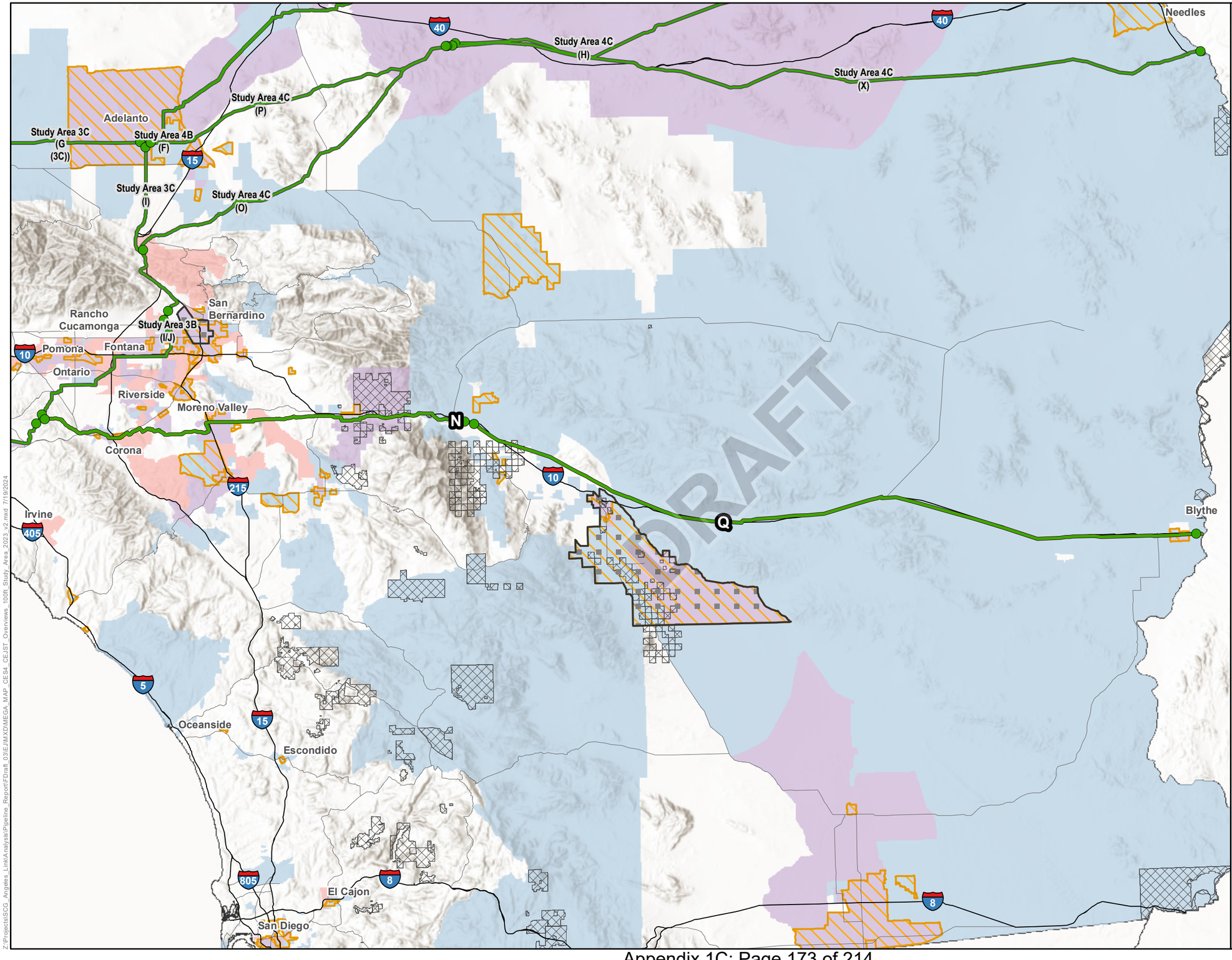

Attachment A: Angeles Link Phase 1 Community Maps

Study Area 4D

- Segement Start/End Point
- Segment^
- Adjacent/Other Study Area Visible
- Route Variation 1

- CalEnviroScreen 4.0 (CES4) SB 535 DAC*
- Climate and Economic Justice Screening Tool (CEJST) DAC**
- CES4 and CEJST Overlapping DACs
- Federally Recognized Tribal Land
- AB 617 CAPP Community Boundaries
- Opportunity Zone

- Interstate
- State Highway

^Alignment based upon conceptual routes identified in November 2023 during the Preliminary Routing/Configuration Analysis.

*CalEnviroScreen 4.0 (CES4) SB 535 DAC identified as:
1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; or
4) Lands under the control of federally recognized tribes. For purposes of this designation, a tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC

**Climate and Economic Justice Screening Tool (CEJST) DAC identified as:
1) Census tracts that meet the thresholds for at least one of the tool's categories of burden (climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development); or
2) Communities on land within the boundaries of federally recognized tribes.

SoCalGas. INSIGNIA ENVIRONMENTAL

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0 10 20 Miles

Source: Insignia, 2023; SoCalGas, OEHHA, CalEPA, 2023

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SoCalGas - Angeles Link
Community-Based Organization Stakeholder Group (CBOSG)
Environmental Justice Engagement Plan – Breakout Session Activity

BACKGROUND

An Environmental Justice Community Stakeholder Engagement Plan (Plan) is being prepared during Phase One of the Angeles Link Project (Project). The Plan will identify elements of engagement activities that are proposed to occur in future phases of the Angeles Link Project, subject to approval by the California Public Utilities Commission (CPUC). SoCalGas proposes to prepare the Plan with input from Community-Based Organizations (CBOs) and the Planning Advisory Group (PAG). As the Project progresses and a detailed Project description is developed, the Plan would identify specific stakeholders. SoCalGas is soliciting input on the Plan at this time, however, the Plan is anticipated to evolve over time as the Project is further studied and developed. In the event future activities are approved by the CPUC, the Plan would be further refined to reflect the Project description at that time.

During the 3rd Quarterly Meeting, participants were organized into small groups of 3 to 4 individuals. The purpose was to brainstorm ideas and initiate the planning process for the Environmental Justice Community Stakeholder Engagement Plan. Every group engaged in discussions on Topic 1, which focused on the goals and objectives of the Plan, in addition to a second topic and a set of guiding questions to facilitate their discussions. In each group, there was a designated scribe responsible for recording the ideas and feedback of group members on sticky notes. These sticky notes were then added to a larger brainstorm board, creating a visually engaging representation of valuable stakeholder input. Because the meeting was conducted in a hybrid format, the activity was modified for online participants to have a similar experience engaging via a digital brainstorm board. There were two in-person groups and four online groups actively participating in this activity. Following these smaller group discussions, one member from each group was assigned to report on the key themes and ideas that had emerged during their discussions.

Key feedback and themes are presented in the next section.

BREAKOUT GROUPS & KEY FEEDBACK THEMES

Group/Topic	Names	Key Themes	Link to Board
Group 1	Luis Melliz, **Soledad Enrichment Action** Andrea Vega, **Food and Water Watch** Rashad Rucker Trapp, **Reimagine LA Foundation** Luis R. Pena, **Los Angeles Indigenous Peoples' Alliance**	Topic 1: Goals & Objectives • Engage Impacted Communities • County-wide Partnerships • Stakeholder Partnerships • Highlight Individual Impact • Collaboration with CBO Stakeholder Group Topic 2: Disadvantaged Communities Comprehensive Engagement Approach • Diverse Community Engagement • Target Grassroots Organizations • Investment in Education • Visual Tools for Clarity • Language Accessibility • Transparency on Cost Effectiveness • Balanced Information • Non-Technical Communication • Engage Water-Related Communities • Public Health Impact	Appendix A
Group 2	Edith Moreno, **SoCalGas** Enrique Aranda, **Soledad Enrichment Action** Kenta Estrada-Darley, **Coalition for Responsible Community Development** Ricardo Mendoza, **Coalition for Responsible Community Development**	Topic 1: Goals & Objectives • Accessibility and Clarity • Focused Discussions • Key Stakeholders • Utilize *Promotoras* Model • Lessons Learned Topic 3: Native American Tribes, Tribal Groups, and Individuals • CBOSG Connections • Balance and Visibility	Appendix B
Group 3	Pastor Michael Fisher, **Greater Zion Church Family** Jessy Shelton, **California Greenworks** Kristin Fukushima, **Little Tokyo Community Council** Ava Post, **Watts Labor Community Action Committee**	Topic 1: Goals & Objectives • Transparency • Empower Communities • Meaningful Engagement • Education • Feedback Surveys • Build Trust • Financial Transparency • Community Employment • Education Rollout • Youth Engagement	Appendix C

		Topic 4: Others Who May be Affected by or Have a Concerted Interest in the Project Based on Solicited Feedback • Hire Organizers • Youth Education • Business Engagement • Community Employment • CBO Involvement	
Group 4	Jill Buck, **Go Green Initiative** Belen Bernal, **Nature for All** Ayasha Johnson, **PESA (Parents, Educators/Teachers & Students in Action)**	Topic 1: Goals & Objectives • Resource Accessibility • Sustained Engagement • Community-Centered Approach • Flexible Meeting Times • Pre and Post Surveys • Quantification • Multiple Engagement Channels • Interactive Engagement Topic 5: Meetings • Various Meeting Locations • Prioritize Participant Comfort • Documentation • Interpretation Services • Incentives • Participant Support • Appropriate Staffing • Balanced Meeting Format • Small Group Sizes • Combination of Presentation Styles	Appendix D
Group 5	Marc Carrel, **Breathe Southern California** Roselyn Tovar, **Communities for a Better Environment** Kevin Weir, **Protect Playa Now**	Topic 1: Goals & Objectives • Educate Key Stakeholders • Connect with Media • Unbiased Information • Community Partnerships • Comprehensive Discussion • Community Engagement • Credible Endorsements • Environmental Impact Awareness • Community Presence Topic 6: Topics and Subject Matter Experts • Specificity in Discussions • Community Voice • Mitigation and Maximization	Appendix E

Group 6	Robert van de Hoek, **Defend Ballona Wetlands** Marcia Hanscom, **Ballona Wetlands Institute** Lourdes Caracoza, **Alma Family Services**	Topic 1: Goals & Objectives • Practical and Relatable Information • Documentation • Detailed Route Information • Address Negative Impacts • Language and Cultural Awareness • Tangible Examples Topic 7: Project Communication Challenges • Repeat and Confirm • Feedback-Based Engagement • Follow-Through • Community Games and Rewards	Appendix F

Group 1

Scribe Name: Alyssa Martinez

Group Member Names and Organizations:

1. Luis Melliz, Soledad Enrichment Action
2. Andrea Vega, Food and Water Watch
3. Rashad Rucker Trapp, Reimagine LA Foundation
4. Luis R. Pena, Los Angeles Indigenous Peoples' Alliance

Picture/Screenshot of Boards: Appendix A

Feedback Themes

Topic 1: Goals and Objectives

- **Question 1:** Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.
  - **Engage Impacted Communities:** Focus on engagement with communities negatively impacted by SoCalGas facilities, including the San Fernando Valley.
  - **County-wide Partnerships:** Collaborate with Best Start Communities county-wide.
- **Question 2:** What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.
  - **Highlight Individual Impact:** Emphasize how the project impacts individuals, including cost, timing, and benefits.
  - **Collaboration with CBO Stakeholder Group:** Partner with CBO Stakeholder Group members for effective engagement.
  - **Engage Frontline Communities:** Prioritize engagement with communities residing near SoCalGas facilities.

Topic 2: Disadvantaged Communities

- **Question 1:** How can we enhance our identification process to supplement outreach to communities to communities that these agency screening tools may not be catching?

- **Comprehensive Engagement Approach:** Adopt a comprehensive approach to engagement.
- **Diverse Community Engagement:** Engage diverse communities.
- **Target Grassroots Organizations:** Focus on grassroots organizations in affected neighborhoods.
- **Investment in Education:** Invest in educating people and simplify information dissemination.
- **Visual Tools for Clarity:** Use visual tools to present information in an appealing and digestible manner.
- **Language Accessibility:** Ensure communication is accessible in various languages.
- **Transparency on Cost Effectiveness:** Be transparent about the cost-effectiveness of the project.
- **Balanced Information:** Share both positive and negative aspects of the project transparently.
- **Non-Technical Communication:** Communicate project details to communities in less technical terms.
- **Engage Water-Related Communities:** Engage communities affected by water use for the pipeline.
- **Public Health Impact Explanation:** Explain possible impacts of the project on public health.

Group 2

Scribe Name: Edna Degollado
Group Member Names and Organizations:

1. Edith Moreno, SoCalGas
2. Enrique Aranda, Soledad Enrichment Action
3. Kenta Estrada-Darley, Communities for Responsible Community Development
4. Ricardo Mendoza, Communities for Responsible Community Development

Picture/Screenshot of Boards: Appendix B

Feedback Themes

Topic 1: Goals and Objectives

- **Question 1:** Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.
  - **Accessibility and Clarity:** Make information accessible by breaking down complicated information; Host meetings in the community during times that work for community; Provide clarity on direct community benefits, air quality, impacts, usage; Share information early in the process, coupled with reminders and updates.
  - **Focused Discussions:** Keep presentations focused on topics the community cares about such as jobs, location, tangible community benefits including community investment, and project impacts.
- **Question 2:** What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.
  - **Key Stakeholders:** Identify elected officials, Councils of Governments, Neighborhood Councils, water agencies, community block captains, and other key neighborhood groups as key stakeholders to engage.
  - ***Promotoras*:** Engage trusted community messengers such as *promotoras* to share information.
  - **Lessons Learned:** Develop a plan that incorporates lessons learned from other large infrastructure projects on how to address environmental and equity concerns.

Topic 3: Native American Tribes, Tribal Groups, and Individuals

- **Question 1:** Which specific tribes, tribal groups, and/or individuals should be engaged in future activities? Identify any leaders or representatives to include.
  - **CBOSG Connection:** Group offered to connect SoCalGas with other tribal organizations and leaders.

- **Balance and Visibility:** There are currently members of the CBOSG representing tribal groups. The group recommended greater visibility should be given to those CBOSG members and SoCalGas's efforts for a more balanced discussion on Native American consultation.

Group 3

Scribe Name: Antonia Issaevitch

Group Member Names and Organizations:

1. Pastor Michael Fisher, Greater Zion Church Family
2. Jessy Shelton, California Greenworks
3. Kristin Fukushima, Little Tokyo Community Council
4. Ava Post, Watts Labor Community Action Committee

Picture/Screenshot of Boards: Appendix C

Feedback Themes

Topic 1: Goals and Objectives

- **Question 1**: Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.
  - **Transparency:** Provide transparency in all communications and engagement activities. This includes providing clear and accessible information to the communities.
  - **Empower Communities:** Give communities decision-making power; allow them to have a say in the project's development and impact on their regions.
  - **Meaningful Engagement:** Conduct engagement that is meaningful and respectful of community concerns.
  - **Education:** Educate communities by making project information digestible and accessible. This involves hosting educational town hall meetings and providing transparent information.
  - **Feedback Surveys:** Provide community feedback surveys to gather community input.
- **Question 2:** What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.
  - **Build Trust:** Build and maintain trust with communities for a successful engagement plan. Recognizing and addressing red flags in advance is essential.
  - **Community Meetings:** Host community meetings in places where community members often gather, such as community centers like Watts Center Community Rooms.
  - **Financial Transparency:** Be prepared to discuss revenue and explain how the project will impact the regions, including financial aspects.
  - **Community Employment:** Provide internships and job opportunities to members of disadvantaged communities and those affected by the project. Hiring from within local communities whenever possible.
  - **Education Rollout:** Develop a comprehensive education rollout plan that involves hosting multiple town hall meetings to educate the community, offering transparent and digestible information. Being honest about the positive and negative impacts from the project.
  - **Youth Engagement:** Engage young people and host booths at school and district-wide events and support education programs that promote careers in hydrogen energy.

Topic 4: Others Who May be Affected by or Have a Concerted Interest in the Project Based on Solicited Feedback

- **Question 1:** Which specific neighborhoods, communities, and/or groups should be engaged in future activities? Identify any leaders or representatives to include.
    - **Hire Organizers:** Bring in organizers to facilitate engagement efforts and ensure effective outreach.
    - **Youth Education:** Concentrate on educating and engaging young people within the communities.
    - **Business Engagement:** Contact and educate businesses along the pipeline route about the project's implications and opportunities.
    - **Community Employment:** Offer employment opportunities and prioritize hiring from within local communities to benefit the regions.
    - **CBO Involvement:** Involve this group of Community-Based Organizations in outreach efforts to ensure a grassroots and community-driven approach to engagement.

Group 4

Scribe Name: Stephanie Espinoza

Group Member Names and Organizations:

1. Jill Buck, Go Green Initiative
2. Belen Bernal, LA Nature for All
3. Ayasha Johnson, PESA (Parents, Educators/Teachers & Students in Action)

Picture/Screenshot of Boards: Appendix D

Feedback Themes:

Topic 1: Goals and Objectives

- **Question 1:** Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.
    - **Resource Accessibility:** Find resources to support communication and engagement activities effectively.
    - **Sustained Engagement:** A key objective is to establish habitual and ongoing engagement with the communities rather than one-off interactions.
    - **Community-Centered Approach:** Focus on conducting engagement in places where Environmental Justice (EJ) groups already gather. Make participation as easy as possible for community members.
    - **Flexible Meeting Times:** Host a roadshow of meetings preferably during evenings or Saturday mornings.

- **Question 2:** What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.
    - **Pre and Post Surveys:** Implement pre and post surveys to gauge the community's knowledge at the beginning and end of engagement activities.
    - **Visuals:** Utilize visual aids as they are deemed important for effective communication.
    - **Quantification:** Quantify the number of residents in various groups reached through communication efforts.
    - **Multiple Engagement Channels:** Employ various communication formats, including writing, visual, and audio, to cater to different learning styles.
    - **Interactive Engagement:** Allow for ample interaction and discussion during engagement activities. Limit presentation time to encourage active discussions.

Topic 5: Meetings

- **Question 1:** Regarding in-person meetings:
    - a. What specific engagement activities should be implemented to inform communities and individuals efficiently and effectively about the Angeles Link Project? Provide at least two specific examples.
    - b. For each unique community or tribal group when (i.e., what time of day) and where should meetings be held? Are community centers, places of worship, or other local gathering locations appropriate?
        - **Meeting Locations:** Community resource centers, community parks (especially on Saturdays), and places with access to Wi-Fi are suitable locations.
        - **Participant Comfort:** Provide substantive food and refreshments for participants and offer childcare services within the sight of parents.
        - **Documentation:** Include a court reporter at all meetings to ensure discussions are documented accurately.
        - **Meeting Timing:** Consider holding meetings on Saturday mornings around 10 a.m. Offer multiple meeting options, including weekday evenings and weekend mornings, to accommodate (families need more flexibility, consider dinner time/weekend activities).
- **Question 2:** Should interpreters be provided in certain communities? If so, for which languages should interpreters be provided?
    - **Interpretation services:** English and Spanish at a minimum. In San Gabriel communities, various API languages.
- **Question 3:** What kind of incentives are recommended to encourage attendance at these meetings? Who from the Angeles Link Project team should attend these meetings with communities? How many staff members should attend, and what expertise should those staff members have?
    - **Incentives:** Consider providing incentives, such as food and refreshments, to encourage attendance.
    - **Participant Support:** Offer childcare services within the sight of parents.
    - **Angeles Link Project Team Inclusion:** Hire team members that represent and understand the community, such as local engineers, planners, safety and public health.
    - **Staffing:** At least a 2:3 staff-to-participant ratio (1 staff member per 10 participants) is recommended. Ensure staff availability to answer all questions from the public.
    - **Communication:** Prepare to have staff available to answer all questions from the public.
- **Question 4:** What type of meeting format would be most appropriate? For example, should the meetings be conducted as open houses with workstations? Would smaller sessions with smaller groups be more effective? Would virtual meetings be acceptable and for what context?
    - **Meeting Format:** A balanced approach is recommended, combining both in-person and virtual meetings due to Wi-Fi concerns.
    - **Group Size:** Smaller group sessions are effective for expressive discussions.
    - **Presentations:** A combination of presentations and open house-style discussions with small groups is preferred to engage a diverse audience and cater to different learning styles.

Group 5

Scribe Name: Nancy Verduzco
Group Member Names and Organizations:

1. Marc Carrel – Breathe Southern California
2. Roselyn Tovar – Communities for a Better Environment

3. Kevin Weir – Protect Playa Now

Picture/Screenshot of Boards: Appendix E

Feedback Themes:

Topic 1: Goals and Objectives

- **Question 1:** Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.
    - **Educate Key Stakeholders:** Educate key stakeholders, elected officials along the identified routes.
    - **Connect with Media:** Educate the media with briefings long before the construction starts.
    - **Unbiased Information:** Provide unbiased information from Angeles Link that includes different perspectives, not just the project's viewpoints.
- **Question 2:** What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.
    - **Community Partnerships:** Partner with local community groups to explain the project's benefits, as such information is more likely to be accepted by the community.
    - **Comprehensive Discussion**: Encourage discussion on both hydrogen and alternative clean energy solutions like electrification and to address both the positive and negative aspects transparently.
    - **Community Engagement:** Emphasize the need to engage with the community to answer questions and discuss direct impacts on environmental justice communities.
    - **Credible Endorsements:** Include credible endorsements from community members who understand the benefits of the project and explain why this is something they should support.
    - **Environmental Impact Awareness:** Highlight the environmental impacts, including the negatives, and address how they will be mitigated.
    - **Community Presence:** Present the importance of having a visible presence in the community through methods like hosting town halls and participating in community events.

Topic 6: Topics and Subject Matter Experts

- **Question 1:** SoCalGas proposes to include subject matter subjects (Hydrogen Production and Transportation System, Operation/Maintenance of Hydrogen System Facilities, Preferred Location(s) of Hydrogen System Facilities, Potential Public Benefits to be Realized by Project Implementation) for discussion at planned community in-person meetings. Should other subject matters be included?
    - **Specificity in Discussions:** Provide more specific discussions about the potential impacts and benefits of the project on communities rather than high-level generalities about hydrogen and Angeles Link.
    - **Community Voice:** Create a pathway for the community to provide feedback and shape the project.
    - **Mitigation and Maximization:** Focus on addressing specific impacts and benefits for various communities and strategies to mitigate negative impacts while maximizing benefits.

Group 6

Scribe Name: Alan Rodriguez

Group Member Names and Organizations:

1. Robert van de Hoek, Defend Ballona Wetlands
2. Marcia Hanscom, Ballona Wetlands Institute

3. Lourdes Caracoza, Alma Family Services

Picture/Screenshot of Boards: Appendix F

Feedback Themes

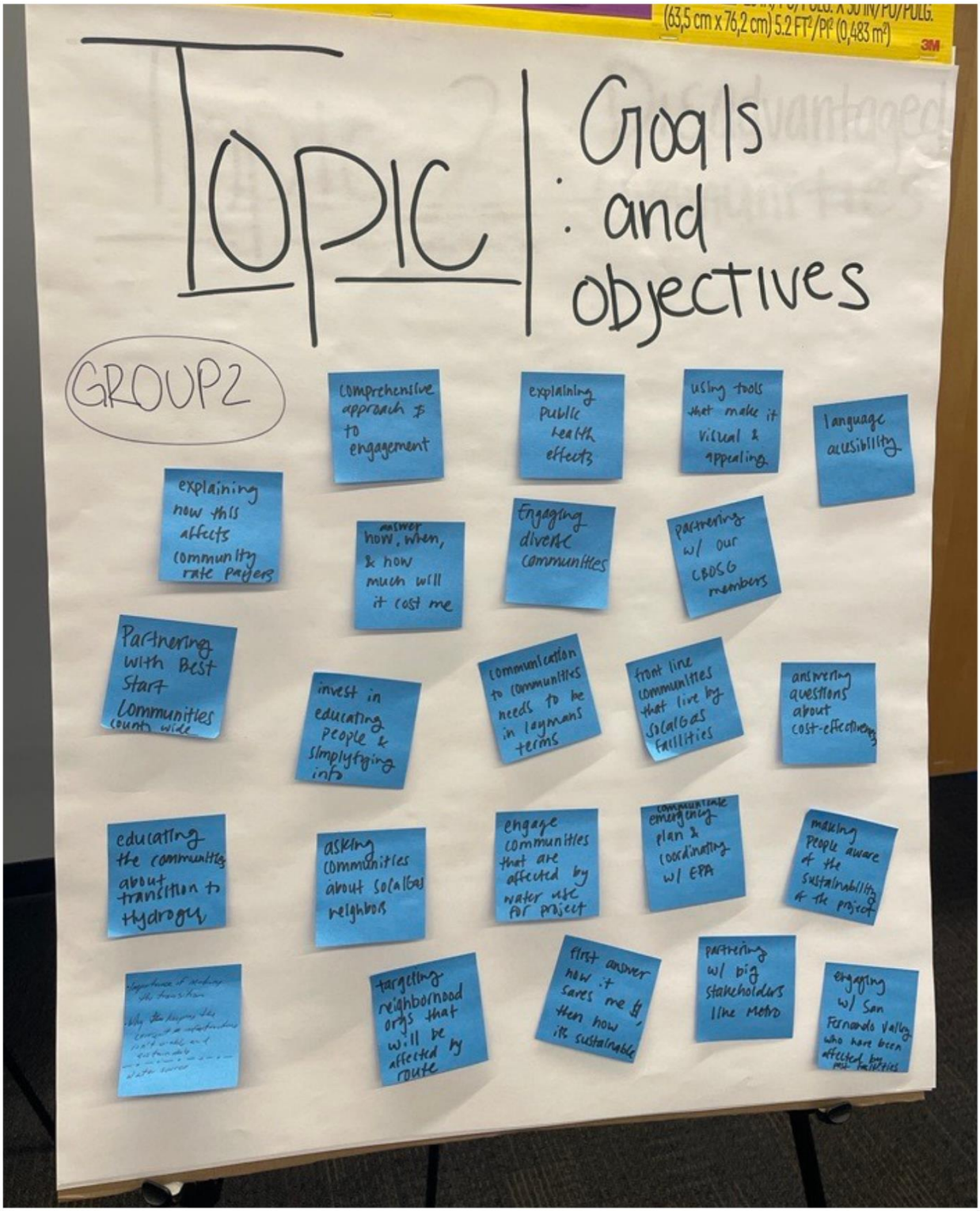
Topic 1: Goals and Objectives

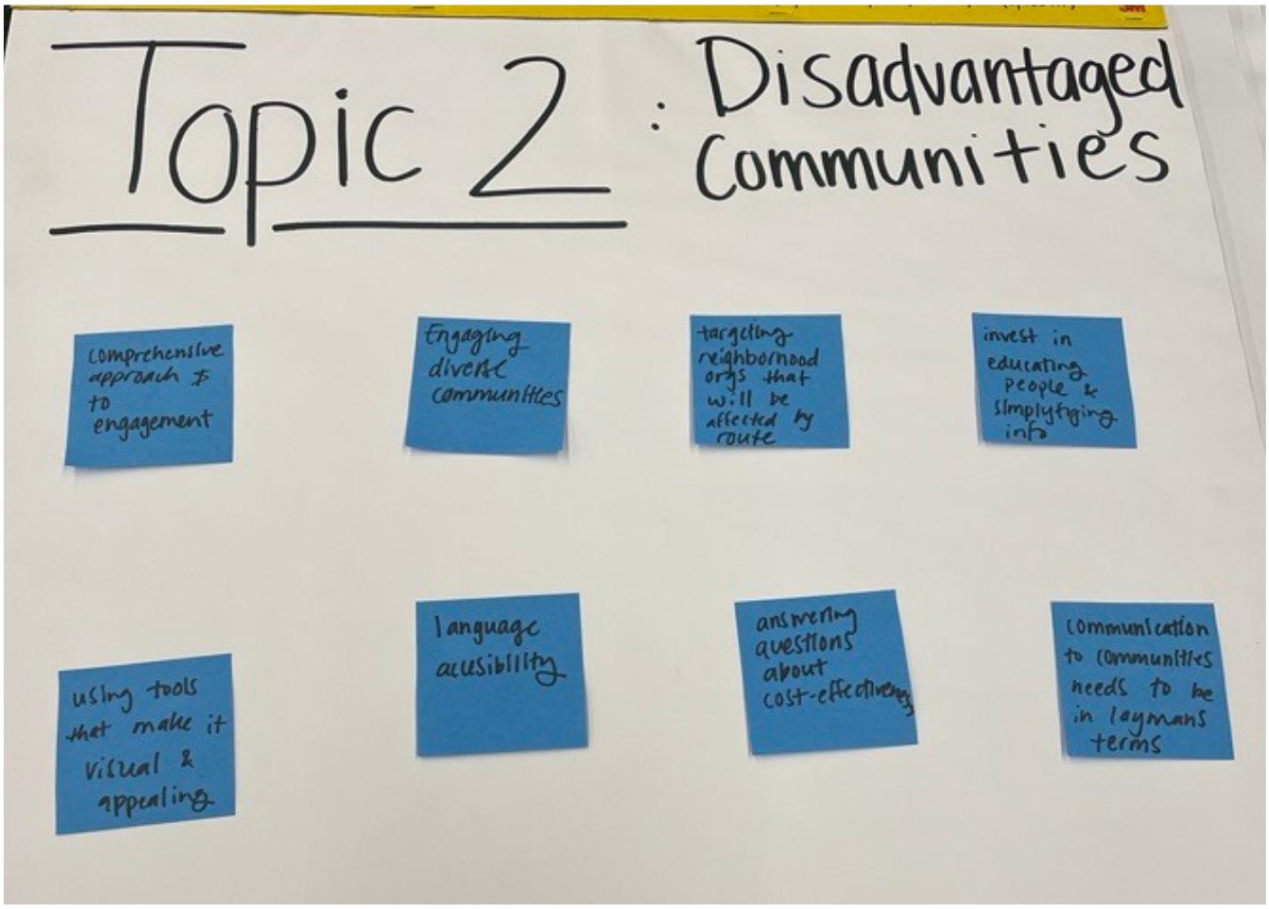
- **Question 1:** Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.
    - **Practical and Relatable Information**: Provide practical and relatable information that the community can easily understand and apply to their situations.
    - **Documentation:** Include a court reporter at all meetings to ensure discussions are documented accurately.
    - **Detailed Route Information:** Feature detailed information about the exact route of the Angeles Link pipelines and impacts.
    - **Address Negative Impacts:** Acknowledge of the need to address and mitigate the negative consequences of progress on communities, particularly those already burdened by the effects of freeways and chemical plants.
- **Question 2:** What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.
    - **Language and Cultural Awareness:** Research and accommodate various languages spoken in the community. Be mindful of language barriers and cultural differences by making information available in various languages and being culturally sensitive.
    - **Tangible Examples:** Provide tangible and relatable examples to help communities better understand complex project details.

Topic 7: Project Communication Challenges

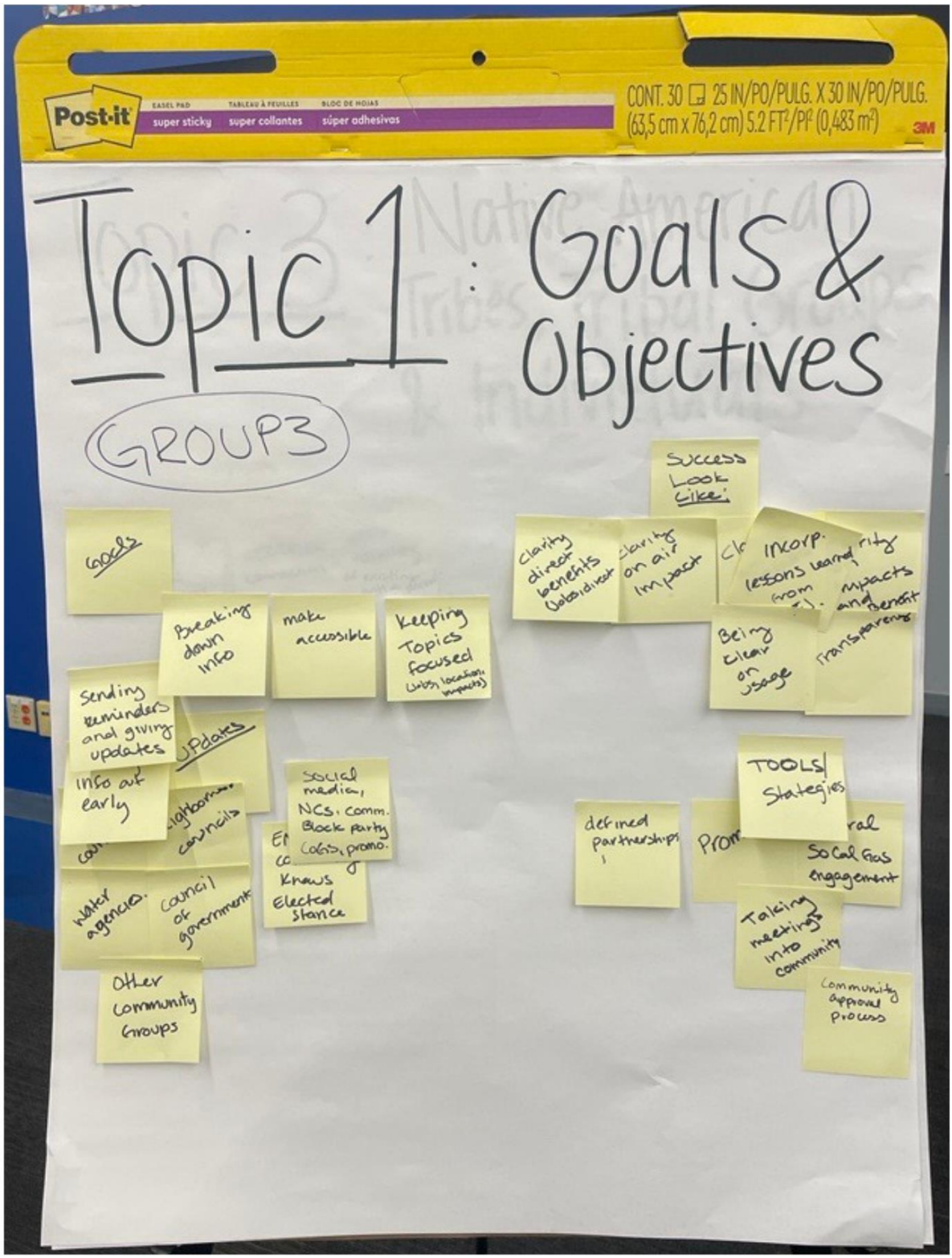
- **Question 1:** What are the potential challenges that could potentially break down communications? Identify any mitigating measures that could be applied to potentially respond to those challenges.
    - **Repeat and Confirm:** Use a communication technique where listeners are asked to repeat what the speaker has said to ensure accurate comprehension.
    - **Feedback-Based Engagement:** Establish engagement methods that require feedback to address any stigma associated with the new resource.
    - **Follow-Through:** Ensure consistent follow-through on presentations and communication to maintain trust and avoid breakdowns.
    - **Community Games and Rewards:** Consider the use of rewards and games to incentivize community members to actively participate and share what they have learned.

Appendix A – Group 1


TOPIC: Goals and objectives
GROUP 2
comprehensive approach to engagement
explaining public health effects
using tools that make it visual & appealing
language accessibility
explaining how this affects community rate payers
answer how, when, & how much will it cost me
engaging diverse communities
partnering w/ our CBDSG members
Partnering with Best Start Communities county wide
invest in educating people & simplifying info
communication to communities needs to be in laymans terms
front line communities that live by SoCalGas facilities
answering questions about cost-effectiveness
educating the community about transition to hydrogen
asking communities about SoCalGas neighbors
engage communities that are affected by water use for project
communicate emergency plan & coordinating w/ EPA
making people aware of the sustainability of the project
targeting neighborhood orgs that will be affected by route
first answer how it saves me $, then how it's sustainable
partnering w/ big stakeholders like Metro
engaging w/ San Fernando Valley who have been affected by


Topic 2: Disadvantaged Communities
comprehensive approach to engagement
Engaging diverse communities
targeting neighborhood orgs that will be affected by route
invest in educating people & simplifying info
using tools that make it visual & appealing
language accesibility
answering questions about cost-effectiveness
communication to communities needs to be in laymans terms

Appendix B – Group 2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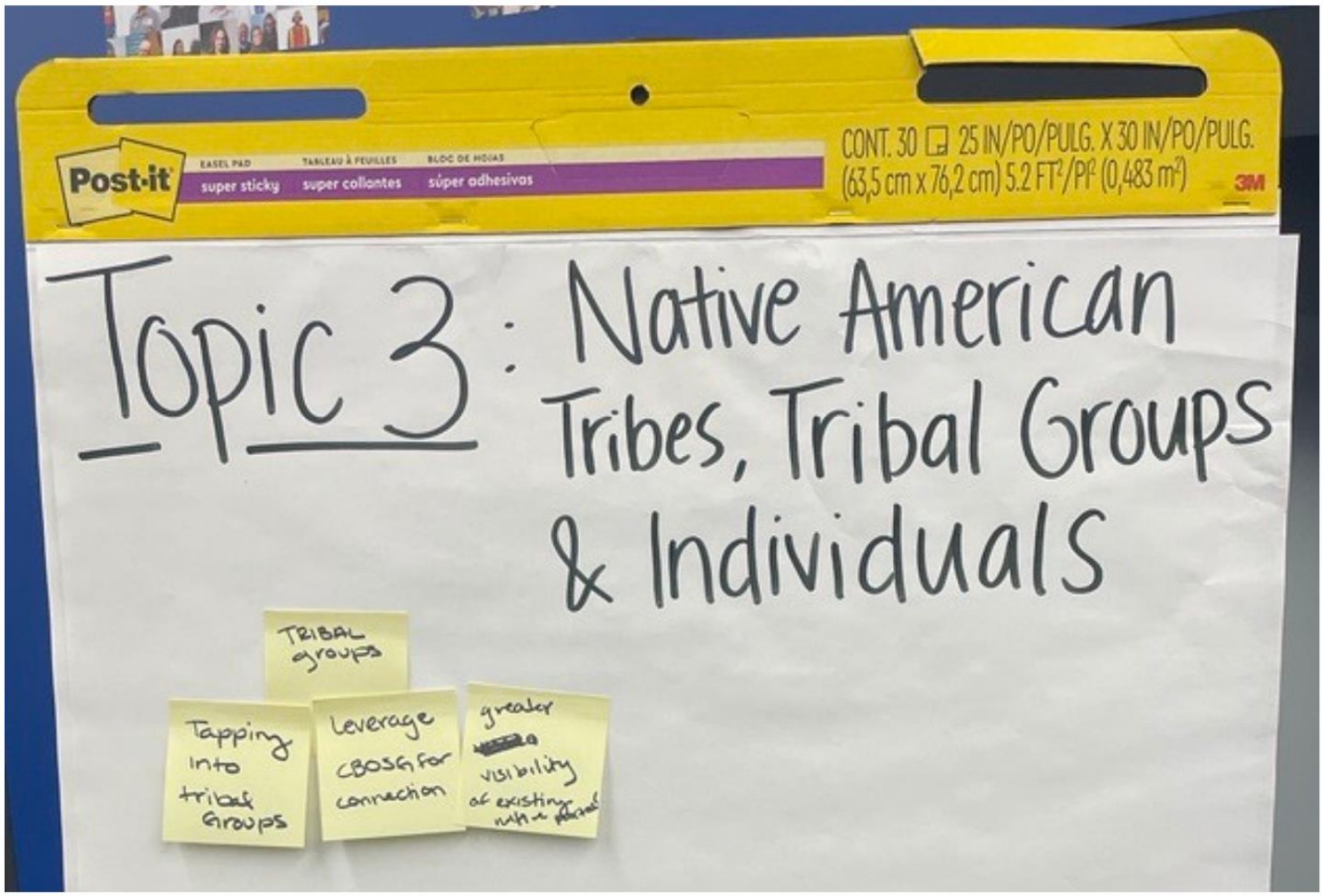
Topic 1: Goals & Objectives
GROUP 3
Success Look like:
Goals
Breaking down info
make accessible
keeping Topics focused
Sending reminders and giving updates
Updates
Info out early
Social media, NCs, comm. Block party Cobis, promo.
Knows Elected stance
Water agencies
Council of governments
Other community Groups
clarity direct benefits
clarity on air impact
Incorp. lessons learned
Being clear on usage
transparency
TOOLS/ Strategies
defined partnerships
So Cal Gas engagement
Talking meetings into community
Community approval process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EASEL PAD
super sticky
TABLEAU À FEUILLES
super collantes
BLOC DE HOJAS
súper adhesivas
CONT. 30 25 IN/PO/PULG. X 30 IN/PO/PULG.
(63,5 cm x 76,2 cm) 5.2 FT²/PI² (0,483 m²)
3M
Topic 3: Native American Tribes, Tribal Groups & Individuals
TRIBAL groups
Tapping into tribal Groups
Leverage CBOSG for connection
greater visibility

Topic 4: Others Who May be Affected by or Have a Concerted Interest in the Project Based on Solicited Feedback

Which specific neighborhoods, communities, and/or groups should be engaged in future activities? Identify any leaders or representatives to include.

Topic 1: Goals and Objectives Q1

Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.

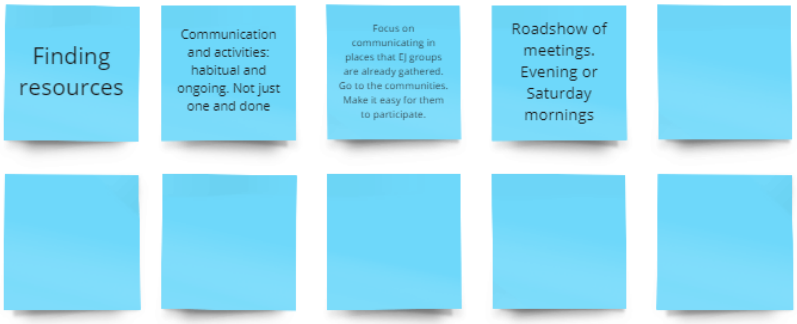
Topic 1: Goals and Objectives Q2

What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.

Appendix D – Group 4

Topic 1: Goals and Objectives Q1

Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.

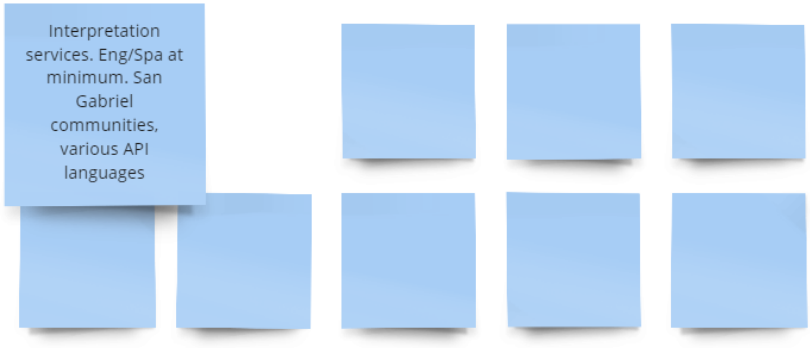


Topic 1: Goals and Objectives Q2

What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.

Topic 5: Meetings

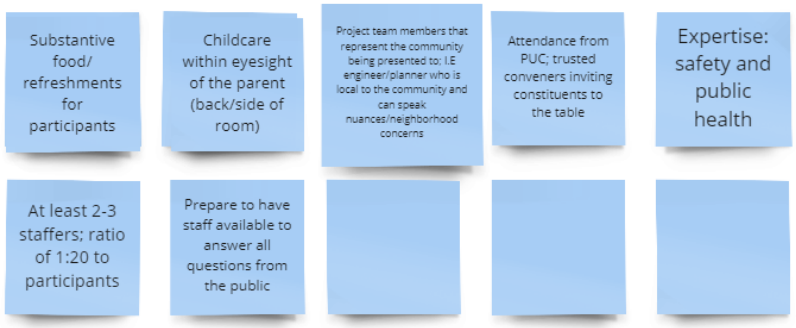
Should interpreters be provided in certain communities? If so, for which languages should interpreters be provided?



Topic 5: Meetings

What kind of incentives are recommended to encourage attendance at these meetings?
Who from the Angeles Link Project team should attend these meetings with communities?

How many staff members should attend, and what expertise should those staff members have?

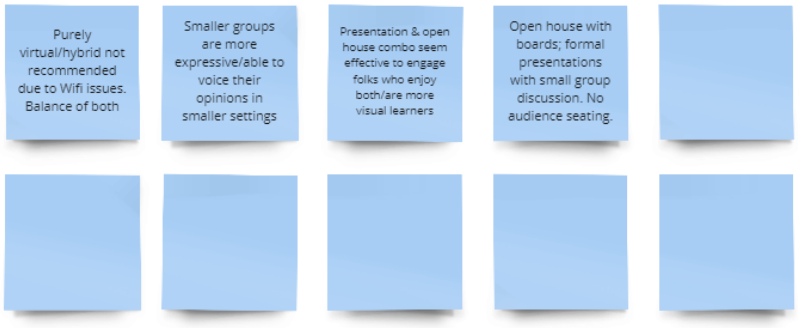


Topic 5: Meetings

What type of meeting format would be most appropriate? For example, should the meetings be conducted as open houses with workstations?

Would smaller sessions with smaller groups be more effective?

Would virtual meetings be acceptable and for what context?




Topic 5: Meetings
• Regarding in-person meetings:
1. What specific engagement activities should be implemented to efficiently and effectively inform communities and individuals about the Angeles Link Project? Provide at least two specific examples.
2. For each unique community or tribal group when (i.e., what time of day) and where should meetings be held? Are community centers, places of worship, or other local gathering locations appropriate?
Interpretation services. Eng/Spa at minimum. San Gabriel communities, various API languages
Community resources centers/ community parks (Saturdays specifically)
Access to WIFI is important
Substantive food/ refreshments for participants
Childcare within eyesight of the parent (back/side of room)
Way for people to provide input. Court reporters make people feel heard knowing that their input is being recorded
Saturday morning (10am ish)
Need multiple options for meetings. Weekday evening, weekend morning to accommodate schedules
Be aware of community you want participation from (families, need more flexibility, consider dinner time/weekend activities)

Appendix E – Group 5

Topic 1: Goals and Objectives Q1

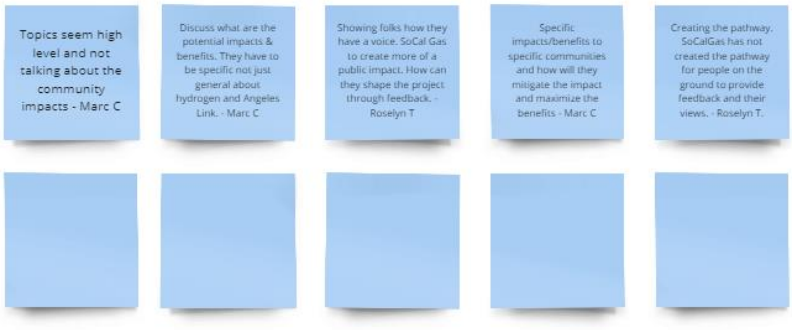
Identify two to three main goals and objectives related to communications and engagement activities that should be conducted as part of future Angeles Link activities.

Topic 1: Goals and Objectives Q2

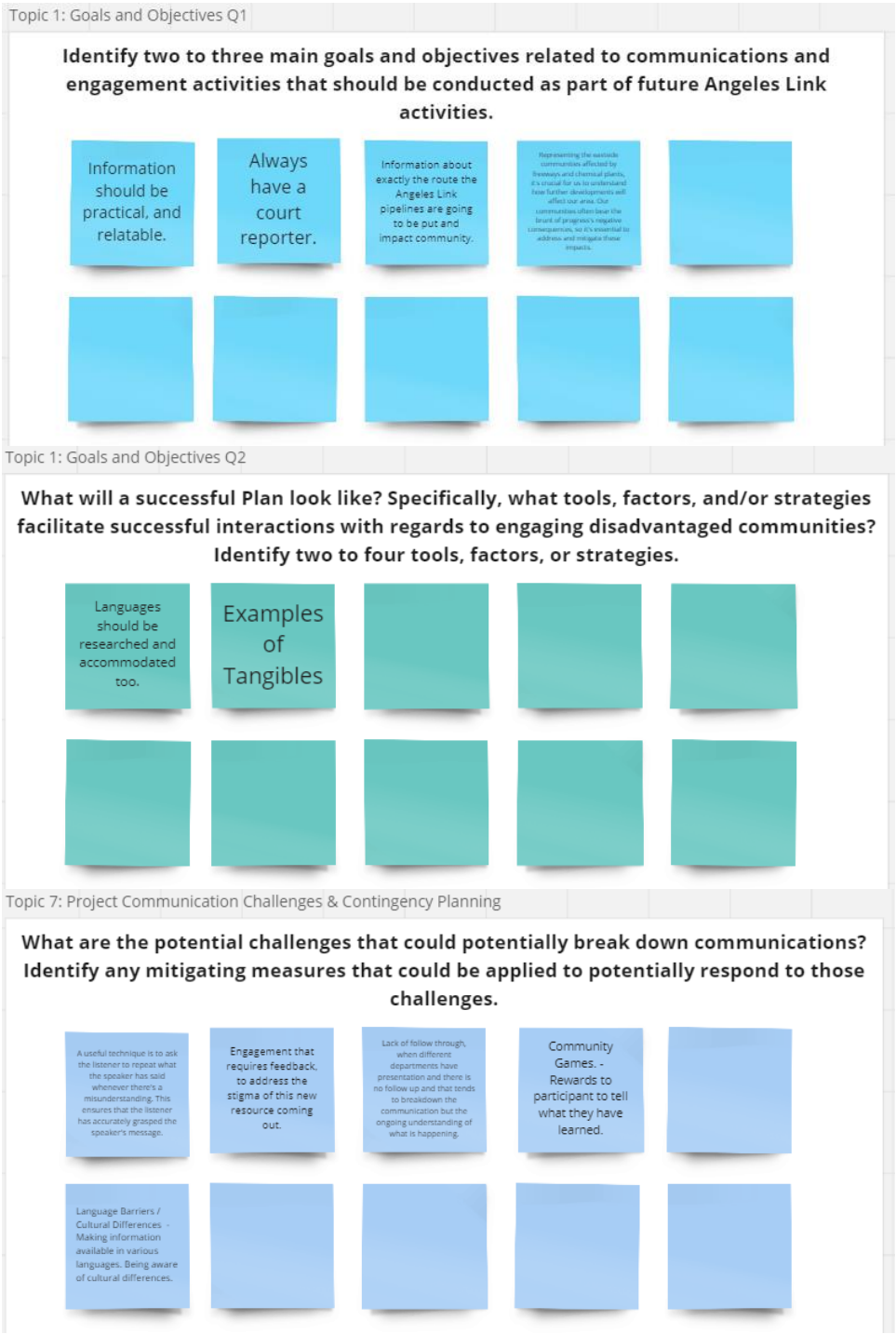
What will a successful Plan look like? Specifically, what tools, factors, and/or strategies facilitate successful interactions with regards to engaging disadvantaged communities? Identify two to four tools, factors, or strategies.

Topic 6: Topics and Subject Matter Experts

SoCalGas proposes to include the four subject matters under the following headers for discussion at planned community in-person meetings. Should other subject matters be included?



Appendix F – Group 6



Equity Principles for Hydrogen

Environmental Justice Position on Green Hydrogen in California

October 10, 2023

PREAMBLE

We represent heavily polluted communities throughout the State of California. Our communities border oil refineries, gas-fired power plants, industrial farming operations, fossil fuel extraction facilities, waste processing centers, ports, transportation corridors and other polluting operations. These cumulative sources of pollution cause a wide range of adverse health outcomes in working class communities of color. Our communities share a common fence with facilities and operations that emit toxins, foul smells, and noise and cause nuisance impacting people's quality of life at all hours of the day and night.

The State of California intends to expand the use of hydrogen as a fuel, and to this end, we offer these guiding principles, which are essential to respect and protect our communities. The following principles represent our collective values and positions to support communities as hydrogen energy is utilized across the state.

Equity Principles for Hydrogen

Environmental Justice Position on Green Hydrogen in California

October 10, 2023

These principles were developed in ten workshops and learning sessions for environmental justice partners across California between March and September of 2023. The learning sessions examined the current science, including risks, benefits, and unknowns, and shed light on each stage of the hydrogen cycle, including production, delivery, storage, and use. The workshops allowed our organizations to discuss different perspectives, build consensus, and reflect on how hydrogen may impact our communities.

We adamantly oppose all non-green hydrogen proposals and projects. We insist that new projects protect communities first and do not perpetuate the injustices that polluting infrastructures impose on fence-line communities today. Each stage of the hydrogen life cycle—production, delivery, storage, and end use—can present unique risks and harms to environmental justice communities and to all Californians. Discussions about building new green hydrogen infrastructure must involve the community, and its members should be meaningfully engaged. Siting green hydrogen infrastructure should also take into account the cumulative impacts of environmental justice communities and the risks associated with hydrogen.

PRODUCTION

1. **We oppose all hydrogen production that is not green hydrogen production, and we agree that green hydrogen is produced by means of electrolysis using surplus water and additional renewable electricity.**

    a. The hydrogen is made using electrolysis of water
        i. Where water used as feedstock is surplus and not diverted from sources which serve jurisdictions that are struggling or failing to meet clean drinking water needs.
    b. Electrolysis is powered only by electricity produced from new dedicated wind or solar power, and
        i. The facility generating the electricity used for the production of green hydrogen does not use tradable renewable energy credits.
    c. If any electrolysis facility is connected to the California electricity grid, it must honor the hourly use concept:
        i. The new renewable generation resource provided for in subsection b(i) above has a first point of interconnection to the California balancing authority in which the electrolytic hydrogen production facility is sited, and

ii. The electrolytic hydrogen production facility must use the new renewable electricity in the same hour that the electricity is delivered to the grid.

d. Green hydrogen is not defined according to pounds of CO2 equivalent.
e. We oppose carbon capture in hydrogen production operations.
f. The above conditions must be the starting point for informed community consent to hydrogen production projects. Though the specifics of a green hydrogen production project may be undefined at the outset of community engagement, the public should have faith that all above conditions are met under any project permutation.

2. We agree that green hydrogen production projects should consider the impacts of electrolysis and be tightly regulated.

a. Projects must include EJ protections related to water use for production/desalination.
b. Projects must not negatively impact California's already stretched water supply.
c. Projects must not use potable water when drinking water needs are not met.

3. We agree that hydrogen production projects must center Tribal consultation and consent for projects considered on or near ceded and unceded Tribal territories.

a. State agencies must mandate any recipient of Federal or State level funding to undergo training on Tribal history, cultural sensitivity, and the significance of the Tribal consultation process for all recipient staff expecting to participate in any hydrogen or related project. This requires ongoing education to keep staff updated on evolving Tribal engagement practices. Educational material should be designed by California Native-led nonprofits or the California Native American Heritage Commission.
b. All public agencies that have the principal responsibility for carrying out, approving, or expecting to participate in any hydrogen or related project must conduct extensive outreach to California Native American Tribe(s) to increase their sign-on to the Tribal notification list; each agency should have to complete the CEQA process as required by PRC 21080.3.1(b)(1). This should also include updating any outdated communication information to assure proper notification for California Native American Tribe(s) when an agency undertakes a hydrogen or hydrogen related project.

c. When a public agency decides to undertake a hydrogen or related project, or decides an application for such a project is complete, this agency must begin the AB 52 Tribal Consultation process. A Tribal liaison must be appointed from the agency with extensive knowledge of the project and Tribal engagement practices to facilitate communication, answer questions, and address concerns from Tribal representatives.
d. If California Native American Tribe(s) request consultation, a good faith and reasonable effort should be conducted with best practices that include establishing a formal process for meetings, site visits, and opportunities for collaborative discussions and allocating sufficient time for meaningful engagement and dialogue, allowing Tribes to provide input and voice concerns.
e. Mandate cultural resource assessments for all projects that may impact Tribal resources to include Tribal experts in the assessment process to ensure accurate cultural insights.
f. Provide consistent updates to Tribes throughout the project's lifecycle, informing them of any changes or developments.
g. Seek feedback from Tribes on the agency's Tribal consultation process and continuously work to improve its effectiveness.
h. Assure that any changes to a General Plan or adoption/changes to a Specific Plan in order to create a hydrogen or related project initiates the SB 18 Tribal consultation process in consultation with the Native American Heritage Commission (NAHC). Same practices for the AB 52 process should be followed in this procedure as well.

4. We agree that hydrogen production projects should center community consent and engagement.

a. Informed community consent is necessary, and should be sought in addition to production conditions listed under #1 being met.
b. Center community input, continue to elevate EJ voices, and ensure meaningful community participation is present for any hydrogen project. This includes providing language access such as interpretation and translation services for non-English speakers, depending on the common languages spoken in the particular community.
c. Any new potential hydrogen production project must include the formation of a local oversight committee that will be composed of local stakeholders including local environmental justice, public health, labor, and utility representatives to

conduct multiple waves of education and engagement to vet the project with the community. This oversight committee will be responsible for coordinating a series of workshops/presentations that will educate the community on sources of energy, emissions projections, job opportunities, and community benefits and risks. Following this process will include the opportunity for the oversight committee to consider local resident feedback to either approve, deny, or make modifications to the plan.

5. **We oppose hydrogen production that includes dirty hydrogen production methods.**

    a. Hydrogen produced using reformation or gasification is not green hydrogen.
        i. This includes hydrogen produced by reformation of municipal solid waste gas, livestock biogas (factory farm gas), biomass, lignite or coal, and
        ii. Hydrogen produced using any fossil fuel as a feedstock.
    b. Hydrogen produced from electrolysis, but powered by dirty electricity sources is not green hydrogen.
        i. Dirty electricity sources include but are not limited to:
            1. Energy produced from combustion of fossil gas, landfill gas, municipal solid waste gas, livestock biogas (factory farm gas), biomass, lignite or coal, and
            2. Electricity produced from nuclear fission or fossil, biogas, or landfill gas fuel cells.
    c. Hydrogen produced using carbon capture and sequestration in any point in its production is not green hydrogen.
    d. For existing hydrogen production, we support phasing out electrolysis powered by GHG emitting fuels or non-excess wind/solar.

6. **We agree that hydrogen production projects should result in net-reduction of energy pollution.**

    a. Hydrogen production should be able to reduce current forms of energy production pollution.

7. **We agree that hydrogen production projects should only be considered if they are limited in scale and scope.**

    a. All hydrogen production projects should be limited in size and scope to the maximum extent feasible.
    b. Public and community dollars that financially support hydrogen production should also be heavily regulated and available in public records.

STORAGE & DELIVERY

1. **We agree that any hydrogen pipelines and storage infrastructure project should be equipped with safety and leak detection technologies and strictly monitored.**

    a. Every hydrogen pipeline and storage infrastructure project must be equipped with effective leak detection technology.
    b. Any proposed project to transport hydrogen must include a leak detection response protocol including an alert system to notify residents and workers of potential exposure, health risks, and a relocation plan until any leak is resolved.
        i. This program must include language access to all local populations and contact staff that can support coordination of leak response protocol.

2. **We agree that any hydrogen delivery project should minimize risk by limiting size and scope and by focusing on environmental impact from development through operations and decommissioning.**

    a. All hydrogen transmission and storage infrastructure projects should be limited in size and scope and equipped with design features to:
        i. Avoid perpetuating the impacts of gas infrastructure on environmental justice communities,
        ii. Prevent leaks, spills, breaches, and explosions in or near environmental justice communities, environmentally sensitive areas, pollution burdened communities, Tribal land, or any residential areas.
    b. In considering new hydrogen transmission and storage infrastructure, the project should:

i. Obtain prior and informed consent from every community and/or Tribe where hydrogen transmission infrastructure originate, pass by, or terminate,
ii. Define who is responsible for managing infrastructure leaks throughout the lifecycle of design, implementation, and maintenance.
iii. And should consider:
    1. Historic harms gas infrastructure has caused in project communities,
    2. Safe, reliable, and efficient alternative methods of energy delivery.

c. Local and regional hydrogen distribution pipelines and storage/compressor facilities should be limited in size and scope to forward these objectives.

3. We agree that existing methane infrastructure is not equipped to deliver hydrogen safely.

a. Hydrogen should not be transported in existing methane gas systems.
b. Hydrogen should never be blended into existing methane pipelines or storage containers.

4. We agree that data gaps should be addressed before hydrogen delivery projects are permitted.

a. Research into hydrogen pipeline and delivery infrastructure should focus on data gaps including, but not limited to
    i. Leakage;
    ii. Appropriate safety testing standards for dedicated hydrogen pipelines;
    iii. Hydrogen gas impacts on humans, ecosystems, and the climate;
    iv. Risks and challenges of different hydrogen storage options such as
        1. Storage in liquid state,
        2. Low temperature storage,
        3. Ammonia,
        4. Methanol, and
    v. Further exploration of data gaps in hydrogen transmission and storage.

5. **We agree that community impacts should determine where hydrogen pipelines are placed.**

    a. All hydrogen delivery projects should obtain prior and informed consent required for communities where pipelines or delivery infrastructure are built or hydrogen is introduced.
    b. Hydrogen delivery projects should fully consider and respect
        i. Historic harms gas infrastructure has caused in project communities,
        ii. Community expertise of their experience, and
        iii. Safe, reliable, and efficient alternative methods of energy delivery.

6. **We agree that the cost of infrastructure to deliver hydrogen should be clear and transparent to ratepayers and consumers.**

    a. Pipeline infrastructure presents a cost issue for ratepayers, given how expensive it is to site and build.

END-USES

1. **We agree to principles of supporting electrification, minimizing harm, and centering community voice and environmental impacts in our consideration of any end-uses that could use green hydrogen as a resource or feedstock.**

    a. Electrification
        i. If the end-use can be electrified, green hydrogen should not be used.
        ii. Electrification should always be prioritized over the use of green hydrogen, including the consideration of rapid advancement in electrification technologies.
        iii. Emerging electrification technologies should be pursued before considering hydrogen for the end-use.
        iv. Electrification research and development should be prioritized above hydrogen research and development.
        v. Hydrogen should only be considered when there is a technical or practical constraint to electrification.
    b. Harmful end-uses

i. Harmful end-uses should be reduced or phased out altogether, such as excessive fertilizer use, where possible.
ii. Using hydrogen to improve a feedstock for an industry that is a harmful industry shouldn't justify the continued operation of that industry.
iii. Potential end-uses should use the Precautionary Principle to first prove that using hydrogen in that context isn't harmful.

c. Community voice and environmental impacts
   i. The cost of using green hydrogen in any end-use should not disproportionately impact EJ communities and ratepayers from lower income families.
   ii. Public funds should be prioritized for advancing electrification over hydrogen.
   iii. All life-cycle impacts, including financial impacts and health and environmental impacts, should be transparently considered.
   iv. Any end-use should reduce local and regional pollutants.
   v. Informed local communities should have veto power over any hydrogen end-use in their communities.
   vi. EJ communities should have a governing voice in end-use decision-making.
   vii. Environmental and EJ impact review processes must be thorough and should never be fast-tracked.

2. We prioritize equitable direct electrification with renewable energy, and we agree that green hydrogen should only be used when that is not an option.

a. Direct electrification with renewable energy is cheaper, safer and more efficient than producing green hydrogen, and therefore should be prioritized.
b. Green hydrogen should be considered only for necessary end-uses that cannot be supported by electrification or phased out by alternatives.
c. Hydrogen gas should not be used in residential and commercial buildings because direct electrification with renewable energy is safer and more efficient.
d. Hydrogen should not be used in transportation methods that can easily be electrified, including passenger cars, light-duty trucking, main line rail, and drayage trucking.
e. Hydrogen should not be combusted in gas-fired generating units to produce electricity.
f. Hydrogen should not be blended into the fossil gas system in pursuit of

decarbonization.

g. We oppose the use of green hydrogen in carbon capture operations.
h. We may support the use of hydrogen in fuel cells to power niche applications such as back-up power for Public Safety Power Shutoff (PSPS) events as long as the high-level principles mentioned above are also followed.

3. We agree that additional research is needed regarding the use of green hydrogen in maritime transport, port infrastructure, long-haul trucking, aviation, fertilizer production, and hard-to-electrify industrial manufacturing.

a. We agree that the principles outlined at the start of this section and elsewhere throughout the document should determine whether hydrogen should be used in any of these applications.
b. We agree that more research is needed on green hydrogen in fertilizer but oppose any end-use that is used to greenwash or justify the continued over-application of fertilizer in rural communities who are forced to live with contaminated drinking water as a result.

WHO WE ARE

- Asian Pacific Environmental Network (APEN)
- California Environmental Justice Alliance (CEJA)
- Center for Community Action and Environmental Justice (CCAEJ)
- Center on Race, Poverty & The Environment (CPRE)
- Communities for a Better Environment
- Environmental Health Coalition
- Leadership Counsel for Justice and Accountability
- Pacoima Beautiful
- Physicians for Social Responsibility Los Angeles (PSR-LA)

Andy Carrasco
Vice President,
Communications, Local
Government and Community
Affairs

555 W 5th Street
Los Angeles, CA 90013

tel: 213. 244. 2165
email:
ACarrasco@socalgas.com

May 6, 2024

Dear Environmental Justice Partners:

Southern California Gas Company (SoCalGas) appreciates the organizations representing the environmental justice community for actively participating in comprehensive learning sessions to explore the scientific aspects, risks, benefits, and uncertainties associated with hydrogen and for developing the Equity Principles for Hydrogen (the Principles document). SoCalGas has reviewed the Principles document and believes it is a foundational document that can help guide the company as we proceed with Angeles Link to foster meaningful conversation between environmental justice advocates and SoCalGas. As envisioned, SoCalGas's Angeles Link project could support the integration of more renewable electricity resources like solar and wind and could significantly reduce greenhouse gas (GHG) emissions from electric generation, industrial processes, heavy-duty trucks, and other hard-to-electrify sectors of the Central and Southern California economy. Angeles Link could also decrease demand for natural gas, diesel, and other fossil fuels, helping accelerate California's and the region's climate and clean air goals. As part of SoCalGas's Angeles Link project, SoCalGas proactively embarked on a robust stakeholder engagement process and formed two stakeholder groups: a Planning Advisory Group (PAG), composed of over 40 entities, and a Community Based Organization Stakeholder Group (CBOSG), composed of 29 CBOs, representing environmental and social justice organizations, faith-based organizations, educational organizations, affordable housing providers, industry associations, labor, ratepayer advocates, and other stakeholders. Several PAG and CBOSG members shared the Principles document for consideration.

SoCalGas acknowledges alignment with the Principles document and our vision for Angeles Link. The Principles document underscores the critical importance of incorporating equity, sustainability, and environmental justice considerations when shaping the future of hydrogen infrastructure in California. Overall, our vision for Angeles Link aligns in the following areas:

- **Prioritizing Community Engagement:** We firmly believe in the importance of a transparent process that actively involves communities and their members during the development of the Angeles Link project. Encouraging that their voices are heard and considered is crucial when it comes to establishing trust with community partners. The PAG and CBOSG, established during the first phase of Angeles Link, represent a crucial aspect of our commitment to engagement and transparency in the project's early stages. It

is essential to recognize that this is just one element of a broader framework for openness and community engagement throughout the project's lifecycle. As preferred system routes are defined at the end of Phase 1, SoCalGas plans to convene route-specific community meetings to solicit input on project design. Additionally, depending on a preferred pipeline system route selection in Phase 2, SoCalGas intends to develop community benefits plans with input from community members. SoCalGas is also developing an Environmental Social Justice Community Engagement Plan (ESJ Plan) that would also be executed in Phase 2. The ESJ Plan is being developed in response to stakeholder feedback, with a focus on how to address questions and understand community concerns related to Angeles Link during project development. The ESJ Plan is also meant to identify community engagement strategies to meaningfully engage with ESJ populations and other disadvantaged communities.

- **Tribal Consultation:** We recognize the importance of engaging tribes and tribal organizations in the Angeles Link planning process and have engaged with several tribal organizations that are part of our CBOSG. Additionally, we are currently broadening our outreach efforts to include tribal governments and other tribal organizations within our service territory—those not currently represented on the CBOSG but that may potentially be impacted by the project. Tribal Nations are identified as a key stakeholder in the ESJ Plan being developed in the first phase of the project, and we will continue to meaningfully engage in productive dialogue with them.

- **Minimizing and Mitigating Environmental Impacts and Reducing Energy Pollution:** Minimizing and mitigating environmental impacts while simultaneously reducing energy pollution are crucial objectives that align with the Angeles Link project. Angeles Link has the potential to displace natural gas and diesel consumption, which could significantly reduce GHG emissions, nitrogen oxides (NOx), and particulate matter, thereby offering air quality and related health benefits especially in communities near heavily trafficked transportation corridors that are disproportionately impacted by poor air quality. As part of the first phase of the project, SoCalGas is evaluating both potential GHG and NOx emissions impacts associated with Angeles Link from transmission of hydrogen, third party production and storage, and end users in the mobility, power generation, and hard-do-electrify industries. Preliminary findings indicate that GHG emissions could be reduced by up to 9 million metric tons per year in 2045—the equivalent of 1 to 2 million gasoline passenger vehicles—and NOx emissions could be reduced by up to 5,100 tons per year.
- **Safety is Foundational Throughout the Lifecycle:** As the nation's largest gas distribution utility,[1] with decades of experience transporting gases, SoCalGas places the utmost importance on safety across its operations. The engineering and design of Angeles Link will prioritize infrastructure and public safety, and the well-being of our

[1] Based on number of customers and revenue.

workforce, including employees and contractors. SoCalGas is committed to collaborating with the community to address safety concerns and integrate community input into the project's safety design.

- **Cost Transparency**: Regulated utilities are required to operate with transparency to foster public trust and accountability. As a regulated utility, the CPUC's oversight over SoCalGas plays a vital role to ensure costs align with regulatory standards, are just and reasonable, and benefit ratepayers. [2] This transparency ensures that the costs associated with hydrogen infrastructure along with the ultimate delivery of hydrogen are just and reasonable which supports affordability.

SoCalGas's role for Angeles Link is solely in the transportation of hydrogen, focused on delivering clean renewable hydrogen to hard-to-abate sectors and impacted areas. Angeles Link would be a non-discriminatory open access pipeline dedicated to public use, allowing all end users to utilize the pipeline infrastructure under fair and transparent terms approved by the CPUC. While SoCalGas does not plan to produce hydrogen as part of the Angeles Link project, SoCalGas supports sustainable upstream production pathways as well as hydrogen usage that minimizes adverse environmental impacts. Keeping this in mind, SoCalGas is supportive of the following issues raised in the Hydrogen Equity Principles document:

- **Non-fossil hydrogen production:** SoCalGas supports clean renewable hydrogen production from non-fossil feedstocks. Further, the CPUC has authorized SoCalGas to proceed with Angeles Link feasibility studies, provided that the transport of hydrogen does not use fossil fuel in its production process.[3]

- **Hydrogen Production Regulation:** We recognize that hydrogen production projects should be subject to rigorous regulation so that community and environmental impacts are mitigated. Therefore, SoCalGas is supportive of regulation of hydrogen production and transportation.

- **Continued Research on Hydrogen End Uses**: Sustained investment in research and development is paramount to unlocking the full potential of hydrogen as a versatile and low-carbon energy solution. SoCalGas is supportive of continued research in diverse applications of hydrogen, particularly in sectors such as maritime transport, long-haul trucking, and aviation.

As we move forward, SoCalGas remains dedicated to upholding these principles and fostering ongoing dialogue with environmental justice advocates. Collaboration and shared understanding are essential as we shape the future of clean renewable hydrogen infrastructure in

[2] Public Utilities Code section § 451 requires that the CPUC determine whether a utility's proposed rates, services, and charges are just and reasonable.
[3] CPUC Decision 22-12-055. Ordering Paragraph 3 (a). P. 73

California. SoCalGas is currently in the feasibility study phase of the Angeles Link project, with detailed project planning yet to be finalized. While we acknowledge that there are some differences in perspectives on the application of these high-level principles, we will continue to better understand the nuances in positions at this project's early stage so that we can strive for greater alignment and integration of our shared values throughout the project's lifecycle.

In light of the ongoing development of Angeles Link, we extend a sincere invitation for you to join our PAG or CBOSG or engage with us through other means. Your insights and perspectives are invaluable to us, and we believe that through collaborative effort, we can learn from all stakeholders involved. Your input and engagement are pivotal in guiding our efforts towards realizing a more resilient and inclusive energy future. Together, we can shape a project that not only meets the clean energy goals of the state but also embodies the values and priorities of our shared communities.

We appreciate your thoughtful engagement and look forward to the possibility of a fruitful collaboration. Together, we can forge a path towards a sustainable, equitable, and community-centric clean renewable hydrogen future.

Sincerely,